MOTHER AND BABY

ANNE B. NEWTON M.D.

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MOTHER AND BABY

HELPFUL SUGGESTIONS CONCERNING
MOTHERHOOD AND THE
CARE OF CHILDREN

"MOTHER AND BABY."

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CARE OF CHILDREN

BY
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Mother and Baby

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PREFACE

The excuse—if one is needed—for adding one more book on this subject to the great number already in the market is that it contains a few simple and easily understood suggestions for mothers on the care of children, more stress being laid on the every-day, commonplace requirements than is usually the case. This little book makes no pretensions, nor is it an exhaustive treatise; its one aim is to attract attention to these things, and to give the reason for doing them.

In spite of the fact that books and magazine articles are constantly appearing, each conveying advice and theories, there is no need to fear that the subject will be exhausted, and it is impossible to crowd everything into one book. Living is becoming so complex that the ideas of two decades ago—if not antiquated—no longer answer the requirements. To many, much

that is here said may have been heretofore considered unnecessary, and to others, possibly, the ideas have never occurred.

Although this is written by a physician, it is not intended in any way to take the place of a doctor's advice. On the other hand, it is hoped that the necessity for selecting a physician and following his advice before the child is born is made apparent. The author feels quite sure that the suggestions here offered will not prove contrary to the advice or judgment of any regular physician, for what is here put forth for mothers and the care of their babies consists of simply the ordinary regulations for hygienic living. The suggestions for the requirements of the nurse, and for the care of older children are the result of years of experience.

Believing firmly that preventive medicine is a higher art than curative medicine, more attention is given in these chapters to the keeping the baby well than to the treatment of the sick baby. Only the simplest rules for treating the sick child, and descriptions of the commoner ills which are met with are here given.

Nothing is said about tuberculosis, meningitis, and many other diseases for the simple reason that nothing can be told to the laity which will be of any reasonable service, excepting the suggestions and rules which hold good for the nursing in any illness.

ANNE B. NEWTON, M. D.

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MOTHER AND BABY

CHAPTER I

COUNSEL TO MOTHERS

Perhaps the author may be pardoned for beginning this chapter of advice to *mothers* by including in the first few sentences the fathers also. In all the books on this subject the father's responsibility is entirely ignored. One might imagine his rôle perfectly insignificant, and that attention to the financial side was all that could be expected of him.

Much has been said, though, about the necessity for cheerfulness and hopefulness, etc., on the mother's part; in other words it is assumed that her mental attitude has a marked influence on the disposition of the child. This is undoubtedly true, but the father has great obligations, too, and his mental attitude also makes a great dif-

ference to both mother and child. The highest degree of perfection for children is only reached by having both parents hold high standards for themselves—moral as well as physical. Of course, people generally appreciate that a man afflicted with tuberculosis or any chronic malady of a grave nature is apt to have children physically below normal, but the majority apparently forget that many other failings not quite so pronounced as the above mentioned are transmitted to the children by the fathers, and that not only the child's physical condition, but his mental and moral structure depends largely upon his paternal inheritance.

This line of thought could be carried out indefinitely, but as this book is primarily intended for the mother, one instance only will be cited, because it is of a great deal of importance and so rarely noticed.

A woman is naturally greatly influenced by her husband. It adds much to her comfort during a very uncomfortable period if he exercises self-control and forbearance, giving up when necessary and putting up with many inconveniences for the good of

the prospective mother, and for that of the offspring.

The prospective mother is rarely able to do just as before, so that certain pleasures or apparent obligations under other conditions have to be given up or set aside for the time being. These changes may be only matters of inconvenience, or they may be of a nature to cause considerable self-sacrifice; but certain obligations are inevitable, and the grace with which they are assumed by both parents makes the greatest possible difference to the entire household, and no one is more materially affected than the child himself.

Taking for instance, anything so apparently simple as fresh air—few people realize the amount of fresh air which should be taken into the system, nor how much difference is made in the well-being of both mother and child by the amount of fresh air which is taken into the systems of both. During the long months before the baby is born, the mother is breathing for two separate individuals, and requires much more than the ordinary amount of oxygen. Difficulty of respiration is one of

the unpleasant experiences women in pregnancy pass through, and as far more air is needed all the time than under ordinary conditions, it is very apparent that it should be pure and not in any way vitiated. One of the most frequent causes of impure air is tobacco smoke. This is always injurious to pregnant women, and to some it is absolutely nauseating, for the smoke itself contains nicotine, which is a deadly poison. For this reason, also, no young baby with his delicate respiratory apparatus should inhale this poison.

This is not intended as a dissertation on the evils of smoking, but only to call attention to the almost universal custom, which in the case of some men at least, would be stopped at once if smoking in the house could be proved harmful. If smoking has to be indulged in, there should be some place for it besides the bedrooms and living-rooms of the family.

In one of our large cities a much-longed-for, and eagerly anticipated baby came to the delight of her parents' hearts; although she was breast-fed and seemed to have a fine start, after a short time she showed

symptons which alarmed the family. The doctor could not find that anything was the matter, but the baby was not thriving, so a change of air was suggested, and tried with satisfactory results.

After returning home, the same symptoms appeared again, and the doctor began to think that moving into the country was necessary, for the child was steadily losing ground. This was practically impossible, owing to peculiar circumstances, and while the question was being agitated as to what could be done, the baby became decidedly miserable, so that the doctor ordered her kept in one room and had her treated as a sick baby. This involved the abolition of smoking in her room with the result that in a short time, having better air, she began to improve.

It was only after a number of setbacks, and much anxiety on the part of both parents and the physician, that the idea of poisoning from tobacco smoke occurred to them.

The father was an inveterate smoker, so that the air of the home was never pure. Every time he stopped the baby be-

gan at once to improve, but as regularly as he resumed and the house was again filled with smoke, she invariably drooped. The lesson was finally learned, but nearly at the cost of the baby's life.

This incident is not an exception, but a condition often met with, though frequently perhaps not recognized, or at least not mentioned.

Besides pure air, much exercise is indispensable for good health, and every human being in order to keep in good trim ought to be in the open air a great deal. Fresh-air treatment is becoming more and more popular; there never has been a time when it was more extensively advocated than at the present. It is one of the best panaceas for sleeplessness, and nervousness of all kinds. This and sunshine are the chief agents which are beneficial in tuberculosis, and all forms of anæmia, and they are plentiful for all who wish it.

All pregnant women, or women who are nursing their babies should be exceedingly careful to form the fresh-air habit. The best way to accomplish it is not to leave

it until a convenient time, but to spend a part of every day in the open air, or go out at a regular time each day.

For women who can do so, taking care of flowers, digging in the dirt, superintending the garden, or having any daily occupation which keeps them much out of doors is beneficial beyond words. It probably seems quite unnecessary to lay so much stress on the necessity for fresh air when so much is being said on the subject by physicians and writers, but, like many of the most commonplace facts in life, it is too often overlooked by the many who know better than they practise.

A certain foreign physician, anxious to prove some scientific question, engaged a few peasant women to submit to certain rules of living during a period of pregnancy. These women were of the poorest of a very poor class, and many of the babies that had previously come into these homes had died because they were too poorly developed to live. The living children were feeble specimens, but the babies that were born after the mothers con-

formed to the hygienic rules prescribed by the physician were entirely satisfactory, physically.

These women were required to be out in sunshine and fresh air daily, and to take a regular, simple diet and plenty of sleep. The results were just the reverse of their former experiences, showing that children from the same stock can be physically satisfactory or otherwise, depending largely upon whether conditions are healthful or unhealthful.

Added to the necessity for physical exercise is that for mental exercise also. There is nothing like keeping the mind occupied with some wholesome pursuit as a preventive for unnecessary nervous discomforts, or morbid fears. It is an excellent plan for women, as far as practicable, to take up some course of reading or study.

It is said of one of the American novelists, whose books were quite extensively read some years ago, that she did her best work when pregnant; always making a practice of working systematically and hard at this time.

She was convinced that the results at-

tained, and her freedom from nervousness more than repaid her for the force of will and determination used.

If women could be made to appreciate how much of the formation and moulding of the character of their children rests upon them, some would surely try harder than they do to secure the best results.

The mental, moral, and physical well-being of children is so largely in the hands of the parents, and so much depends upon the attitude they take, that we may venture to say that it is practically impossible for women who will not exercise or keep their minds occupied in a normal, legitimate manner to have healthy or satisfactory children.

Very many of the human wrecks which are evident on all sides owe their poor physical condition and their moral failures to the utter indifference of the fathers and mothers. There are many people who finally wake up to this, but the scars are always to be seen, no matter how sincere the desire to make amends. Prophylaxis —that is to say, a realization of the evils that may come unless the proper precau-

tions are taken here, as everywhere in medicine—is by far the wiser course.

Again, the pregnant woman besides being careful about fresh air, exercise, and keeping her mind occupied, should observe some other essential rules. A great deal of sleep is as indispensable as the other necessities, and early regular hours should be an unalterable rule. In addition to early retiring, the woman needs to sleep in the daytime, and an hour's nap either before or after the midday meal ought to be taken religiously each day. The woman who observes these simple rules will be well repaid, and after trying it once will see for herself that it makes just the difference between being very comfortable, and only slightly inconvenienced, or having more or less discomfort all the time; and the difference will also be very apparent in the child.

It hardly seems necessary in this enlightened age after so much has been said and written about tight lacing to bring it up here. Comparatively few women are quite so foolish as to indulge in this hurtful practice now. Very loose corsets or

corset waists which support the clothes are not necessarily harmful; the point is to have plenty of room to develop, and some support for the abdominal muscles. Of course, the skirts should be light in weight, and everything made to allow for free respiration.

Large shoes with straight heels should always be worn; tight shoes or high heels, never. Rubber heels are very comfortable for the majority of women, especially those who come down with considerable force on the heel instead of the ball of the foot. Occasionally a woman finds them too heavy for comfort, but as a rule, if they are properly fitted, they not only facilitate walking, but save much unnecessary fatigue. Unless the best grade of heels is used they will catch and tear the skirts, which is very undesirable.

Often one of the really trying conditions attending pregnancy is the tendency of the teeth to decay. A woman should be very careful to have them put in good condition as early as possible, and very much of the trouble can be averted by carefully brushing them after each meal. On this point

it is surprising how indifferent many people are. One of the great causes of the decay of the teeth is simply that no extra care is taken of them where the digestion is somewhat overtaxed; this is the time of all others to be particularly careful. It is a very wise precaution not only to brush them after each meal, but to rinse the mouth three or four times a day with some good antiseptic solution. It is better perhaps to vary this solution occasionally. Bicarbonate of soda (baking soda)—about a quarter of a teaspoonful to a glass of water—makes an excellent mouth wash.

Sieler's tablets—one tablet to a glass of water—have been used with satisfaction for many years. Thoughtfulness in this matter may save much pain and annoyance. It might be added that these precautions will never come amiss, and ought to be taken by every one.

Closely allied to the care of the teeth is the question of diet, which is of prime importance, and ought to receive more careful attention than it does in both pregnant and nursing women. The necessity of eating food which is wholesome and easily di-

gested should be apparent to every one, but in this matter, as in many others, it is perfectly evident that errors of judgment are the rule rather than the exception. Before the baby comes—at first, at least—loss of appetite is very common; this, however, will adjust itself if the woman will carefully follow the suggestions that follow.

Generally speaking, it is not wise to eat from a sense of duty, for nature will assert herself, and the appetite will come back. Sometimes the craving for food is excessive, and a desire to eat all the time is quite overpowering. A cup of hot water or a glass of lemonade will usually serve to stop the craving, and will be far better for the woman, and eating between meals should be carefully avoided, as it produces indigestion. Very much can be accomplished by a firm will and determination not to be disturbed by these unusual feelings.

Meat should be indulged in sparingly from the very beginning; it is too rich in albumin, which may, and often does, affect the kidneys. Two or three times a week is sufficient, gradually diminishing this

amount until the last three or four months, when none should be eaten. It is often wise to give it up entirely, as it is not a necessary article of diet for the pregnant woman.

Coffee and tea play an important rôle and are injurious unless very weak. Rich foods, pastry, and much sweets will only clog up the bowels and make the patient generally miserable. Alcohol, of course, should never be touched.

Apples, pears, peaches, grapes, oranges, grape fruit, plums, in fact all ripe fruit can be eaten with great freedom, and perhaps it is not too much to say that no one can eat too much fruit if it is taken as food, and eaten at meal-time.

Bananas are rarely ripe when eaten, consequently are often indigestible. They should be kept until the green ends have turned entirely, and the skin somewhat black. The inside should be soft and smooth. If they are eaten in this state most people would not find them hurtful in the least. In common with all other fruits, they ward off constipation. Green fruit of any kind is indigestible. If there

is any question about the ripeness of it, of course it should be cooked, and for some people this is the better way always. The plea here is for a free fruit diet; the way of serving it, however, depends upon the individual. One word here about the necessity for washing thoroughly all fruits and vegetables before eating, especially if they are purchased in any public place. There is a possibility of infection from vegetables and fruits which come from markets, farms, and private gardens. The rule for every one should be to eat nothing of this kind until made clean, for there is no question but that many diseases are carried into the system through the mouth. The mysterious origin of many cases of typhoid fever, for instance, could be cleared up if it were possible to detect the bacillus by the naked eye, instead of the complicated laboratory methods.

Not many years ago a young woman was in a hot climate for the first time. In spite of the warnings of companions and old residents, she persisted in eating fruit, uncooked and unwashed; as a consequence, she contracted a fatal bowel trouble and

died, alone, and far from her family and relations. This was a perfectly unnecessary sacrifice of life, and all because she would not take what seemed to her a useless precaution.

Cereals are most wholesome, wheat, hominy, rice, etc. It is safe to say that vegetables, simple dessert, and milk can be taken in great abundance. Too much stress can not be laid upon the necessity for drinking much milk, although there are women who object to this, because they say it disagrees with them. It rarely disagrees with a pregnant or nursing woman, and if given with some care, can practically always be taken and well digested. Nature demands it, and in these cases, as in all others, it is the part of wisdom to obey nature's dictates. Many more women could nurse their children if they would be careful to drink milk freely all the months before the baby comes. Sweets in moderation are allowable, especially chocolate, unless owing to some personal idiosyncrasy it gives trouble, a concession to personality, however, which applies to all articles of diet.

It is imperative that a large amount of water should be taken into the system every day. There is nothing which will do more to guard against constipation than drinking plenty of good, pure water. If this has not been a habit before, it should be most assiduously cultivated during pregnancy.

This should be taken before breakfast, the last thing before going to bed, and also several times between meals. Vichy is agreeable to many, and perfectly allowable, the chief objection to it being that it may cause eructations, which are rather more easily acquired at this time, and decidedly unpleasant. An unnatural desire or craving for some unusual article of food is sometimes met with. The woman who steadily refuses to indulge herself inordinately in any way has gained a victory which tells in more ways than one. Great moderation in everything and no excesses of any kind should be the rule, and the woman who adheres to this will save herself much unnecessary trouble.

Pregnant women have unlimited opportunities to exercise self-control, although it

may be hard for a woman who has never practised this to make a beginning now. But if she wishes to get the best out of life for herself or her child, it is absolutely essential.

No fine character develops without self-control as one of its bases. Godliness, truthfulness, and cleanliness complete the figure, and on this structure the power for good that may be reached is really unlimited.

A teacher was relating some of the woes of her experience to a wise woman, the mother of a large family of boys and girls who were famous for their good minds and good manners. Finally she said, "But you do not understand any of this, for your mother trained you before you were born, and you have trained every one of your children before he was born, consequently one-half of life's battles were won for them before they started out themselves."

Of all the factors which go to make up the complex existence which we call life, there is not one which does so much toward building up the general well-being of humanity as a methodical emptying of the

bowels at regular intervals. It makes so much difference in the mental attitude as well as the physical that it is positively astounding with what indifference the matter is treated by so many intelligent people. It is the first question asked by a physician, and a great many times the answer is that in order to have any movements a cathartic has to be taken; and many people say that it is nothing uncommon not to have the bowels move for two, three or more days at a time. The effect of this carelessness is more far-reaching than the laity can possibly realize.

It is a common factor in many nervous disorders, extreme or otherwise. Insane patients almost to a unit are constipated. It is a well-known fact that the great majority of sufferers from appendicitis have been constipated, perhaps for years. In many of the large department stores anti-appendicitis medicine is sold to the credulous public. Those who buy it suppose that it contains some magic charm to ward off that much-dreaded disease, when in reality it is largely composed of simple and well-known remedies added to

some cathartic which simply causes the bowels to move.

Constipation not only renders individuals particularly liable to appendicitis, and in fact to all diseased conditions, but unless the alimentary tract is kept cleared it makes them a far easier prey to typhoid fever, dysentery, and all kindred diseases. In fact, there is no abnormal condition that is not made materially worse by having the bowels clogged. Of late there has been a good deal of talk about auto-infection as an exciting cause in those obscure cases of headache and neurasthenia, which are the bugbear of every physician and often so hard to treat successfully. This simply means lack of properly keeping the system cleared of the effete matters which act as a poison. The lungs, the skin, the kidneys and the bowels are required to do active work to keep the machinery going. If any one of these agents is not up to the work the others have added work to do. It is decidedly the part of wisdom if one would have good health to take care that each organ does its best so far as the individual can control it.

The cases of constipation (unless due to malformation) which cannot be cured by patience and perseverance on the part of the victim are few and far between. The trouble is that people will not persistently try. If the dainty and fastidious would only stop to consider that the breath and perspiration of people whose bowels do not move with great regularity are always more or less offensive, this might act as an additional spur. Acne (blackheads) and various skin eruptions are caused by digestive disturbances, all of which can be greatly benefited by care and attention to the diet and the proper condition of the bowels.

The above remarks are applicable to all mankind, but they apply with double force to the pregnant woman. There is more danger of auto-infection in her case, than under ordinary conditions; therefore, no pregnant woman should allow one single day to pass without a free defecation. The rule should never be violated. According to the suggestions already given, fresh air, with an abundance of water and the proper diet *will invariably* do the work. Cathar-

tics are harmful and should never be used, except by the physicians' orders.

It has been said that one of the waste channels is through the skin. This is a complex structure composed of various layers, the external one made up of old dead scales of skin which are constantly peeling off to make room for other scales. This process of scaling or desquamating is going on all the time, otherwise the skin would become leathery and hard, as is seen in old people who do not bathe enough. It is plentifully provided with two kinds of glands, sweat or sudoriferous, and sebaceous or oil glands. The sweat glands are many, and all over the body, being particularly plentiful in the palms of the hands and the soles of the feet. The sebaceous glands are closely related to the hair, each separate hair having two or more little glands around it. Their function is to keep the skin soft and supple by supplying the necessary oil, and to give the hair nourishment and lustre. These glands are particularly large around the nose, and on the cheeks. Besides the oily or sebaceous

substance which comes from the oil glands, normal sweat contains an oil also, and with these secretions is freely mixed effete matter from the system. The process of discharging these mixed substances is going on more or less completely all the time, depending upon a number of conditions. When the other avenues of elimination are doing their part, and only the normal amount of work is put upon the skin, conditions are generally satisfactory, but just as soon as an extra amount of work is expected, unless care is taken there is apt to be trouble. There are cases where the glands are abnormally active. If these are the sebaceous, the skin looks oily and greasy unless great care is taken. If the sweat glands are easily excited, profuse perspiration is the result, which is only too apparent to every one. The two essentials for having a fine skin are first, a good digestion, and second, bathing freely.

The Spanish lady of high rank who boasted that she had never had an ordinary bath with soap and water in her life, but

that she was occasionally rubbed down with a towel soaked in oil undoubtedly preferred this method.

No mention is made, however, of her appearance or the odor which emanated from her person, but perhaps it is better to pass these over in silence. To keep the skin in good order, and to have it do its share of the work toward good health, a person should take a bath from head to foot once a day the three hundred and sixty-five days in the year.

There are people who look clean on much less than this number, but the great majority can not keep so on much less than one bath a day. A proof of this may be found by taking a Turkish bath, which includes a vigorous steaming and scrubbing. From many people small rolls of skin and dirt are removed, and this means a lack of sufficient bathing and rubbing to keep the surface of the skin freed from the dead particles combined with dirt and perspiration. If a person exercises a good deal, and perspires freely, nothing but bathing once a day at least makes him agreeable to his friends and comrades.

The question as to the wisdom of taking a bath every day has been discussed by many, some for and others against the scheme. There may be peculiar circumstances which make it unwise for an occasional person to bathe often, but this is the exception not the rule. For a normal, healthy person who eats, exercises, and sleeps as he should, a cold bath in the morning is one of the best tonics that can possibly be taken. So far, these notes apply to the pregnant woman as to all healthy women.

The question may be legitimately raised as to the advisability of her taking a cold plunge every morning, but a sponge bath cannot hurt any one, and it will help get the circulation and respiration into good order as nothing else. It is essential to remove these scales from the skin, which frequently adhere, especially if the oil glands are active so that a hard rubbing with a flesh brush or coarse towel is needed to keep the surface smooth. Cold baths alone are hardly equal to removing all this outer layer, particularly if the water is hard, so that they had better be supple-

mented during the week by one or two warm ones. There is very little danger of a well-occupied individual bathing too much—the great majority do not begin to bathe enough.

It is quite evident that if this is true, it applies with double force when double work for the skin is required, and just as fresh air and exercise will allay sleeplessness and nervous disorders, so will bathing when properly done.

A warm bath at night will often make a nervous, wakeful person rest quietly, and a morning cold bath with an energetic rub will make the heart beat better, and in cold weather will warm one up for all day. A hot douche down the spine followed by a cold one, is one of the best nerve bracers that can possibly be advised. Spinal douches are given by letting a spray of water play upon the spine from a sufficient distance to produce a sharp reaction, the distance being determined by the feelings of the patient. In an ordinary bathroom a few inches is generally quite sufficient.

The water should be first hot, then cold,

and allowed to play from the base of the brain to the end of the spine. To be given in this way requires the assistance of another person, but an excellent substitute is to stand in the tub and squeeze a sponge full of water on the back of the neck, alternating with hot and cold. This should be done several times to procure a proper reaction.

Towards the last of pregnancy, a hot sitz-bath at night is particularly refreshing, and if taken two or three times a week exerts a very beneficial influence. If all women would take sitz-baths for the last month or six weeks, and one after labor pains have commenced, it would often facilitate matters better than any known drug.

It is certainly a very simple remedy, and the truth of these statements can be easily verified by the testing. Hot and cold water judiciously applied will mitigate and frequently cure many of the ills of life. The mistake people so frequently make is thinking that the remedy is so simple it is hardly worth trying. It is certainly true that many people would

rather do something unusual or employ some more pronounced method, as Naaman did, or even take drugs, to reach some desired end, rather that anything so commonplace as plain water; and in many instances the water treatment is far more efficacious.

Before leaving this subject, one more phase must be mentioned. The care of the breasts is of prime importance and is often omitted, when most disastrous consequences follow.

They should be washed carefully every day, especial attention being given to the nipple and surrounding tissue.

Use cold water and soap, and rub with increasing vigor until all sensitiveness is gone, occasionally using a few drops of carbolic acid—10 or 15 drops in a bowl of water. If the nipples are retracted, in addition to the washing, they should be massaged until visible results are attained. If there are cracks or fissures ichthyol, 10%, with lanolin and vaseline, equal parts, rubbed in will heal them, and this should be accomplished before the baby comes.

Mastitis, or inflammation of the breasts, is one of the most distressingly painful complications attending confinements, and is practically unnecessary if proper care has been taken.

Not a single instance of mastitis was found in following the histories of many pregnancies where this simple precaution had been taken. There, too, it is not infrequently the case, that the soreness and discomfort caused by the chewing and biting by the baby is so severe as to cause the mother to give up trying to nurse him, so that there is not only the danger of mastitis which is caused by infection from without entering through the cracks or fissures, but the possibility (which is always to be deplored) of the baby's being deprived of his proper nourishment. If the nipple and tissues around it are properly cared for, however, there is little opportunity for these complications. Again, prophylaxis is the wiser measure.

There is still one more suggestion as to the care a woman should take, which if followed, helps much to bring about satisfactory results; rubbing the abdomen

thoroughly with any good lubricant, as olive oil. The strokes should begin on the right side, then be carried up and across the bowels, then down the left side —also kneading the muscles gently, using the oil freely, and rubbing it well in. This is very efficacious for constipation, and helps balance the circulation.

A certain physician made for himself a considerable reputation for the easy deliveries of his patients, using some method not generally known to the public to procure these results; it finally became known that the "charm" employed was oil well rubbed into the abdomen three or four times a week before labor. This simple remedy has been used by careful obstetricians for a long time.

It gives some people a great deal of pleasure to talk over their experiences with others, and if these particular experiences have been unusually severe the pleasure seems to be keen in proportion. Often the results are far from pleasing to the one who hears the stories. More than one prospective mother has been made very nervous and unhappy by these recitals, and

the effect has been far reaching. In nervous, hysterical women with strong imaginations, the dread and anxiety with which they look forward to the crisis is pitiful, and all so absolutely uncalled for. For instance, there is a great deal of gossip among certain types of women regarding instrumental delivery. Truly, the invention of forceps was a fine thing for humanity, and at times by their aid the mother's life or the life of the child has been saved. But it is never necessary for a pregnant woman to be alarmed by the garbled history of exceptional cases.

In 1354 consecutive cases in the New York Infirmary for Women and Children forceps were used only thirty-two times, and of these, of course, many of the patients were foreigners with deformed pelvis. The above is probably too high a percentage for the same number of American women.

In the countries where the inhabitants are only half civilized or savage, childbearing is rather a slight affair, causing but little inconvenience to the woman. Pain and complications follow in the wake

of civilization, and even here increase with wealth and luxurious living.

Among the laboring class where there is not any too much time to be laid aside, women as a rule do well, excepting when stupid or ignorant mechanical interference has produced evil effects. Cases are seen in the hospitals over and over again where the women are delivered with no great amount of pain, and occasionally with no pain at all. It seems very reasonable to suppose that by far the majority of cases could be made much easier, if not entirely free from pain, if the proper precautions were taken.

The blunders made by the ancestors have to be accepted—the alleviation that comes from right living by the children is all that can be done—but the doctrine of the ablest thinkers on the subject will be found to agree in this: "It is the previous life of the mother, the whole of it from her birth to the birth of her child, which almost entirely determines what her danger, her difficulty, and her pain during childbirth shall be."

RECAPITULATION

I. Let both parents accept the situation cheerfully, exercising forbearance and self-denial as the occasion requires.

II. Let the mother live in fresh, pure air twenty-four hours of the day, and exercise regularly.

III. Keep the mind occupied with some healthy employment.

IV. Keep the mouth and teeth scrupulously clean.

V. Eat simple, easily digested food and fruit, avoiding all highly seasoned articles, all stimulants, including strong tea and coffee.

VI. Drink plenty of water and plenty of milk.

VII. Take much sleep.

VIII. Keep the bowels well open.

IX. Bathe from head to foot every day and rub the nipples vigorously each time.

X. Avoid all unnecessary conversation of awful experiences of other women during pregnancy or labor, and all unwholesome excitement, whether from books or any form of amusement. In fact, cultivate self-control and patience, and the results will quite repay the effort put forth.

CHAPTER II

CARE OF THE NEW BABY

In the foregoing chapter were suggestions to prospective mothers which, if carried out, would rob that part of their experience of much of its dread and morbid fear.

In this chapter will be given suggestions as to the care of the children after they are started in life. Each turn in a child's career has its own peculiar demand, and these demands have to be regulated by some older person. The child whose lot has been cast where his needs are ministered to with wisdom and sincerity of purpose has a most tremendous advantage. All babies are entitled to the best, but very few ever have this; fortunately many who only have mediocre care, and some who have the worst that is possible, survive and "make good."

Ignorance is at the bottom of most of

the mistakes that are made, and it is appalling to see the results, so painfully in evidence on all sides, produced by mothers who love their children and try to do the best that they know for them.

Instinct and mother love are strong indeed, but experience has shown that they are insufficient to grapple with this great problem unaided.

A physician was attending a foreigner in confinement, in a crowded district of one of our large cities; in addition to the members of the immediate family, a number of friends and neighbors were assembled, after the prevailing custom of these people, giving advice and offering sympathy. After the baby was born, one of the friends, rather older and more important than the others, picked up the wee little scrap by his heels, and plunged him head first into a large dish-pan full of cold water. This operation was repeated three times before the doctor could stop her, and the explanation given was that if the child survived he would grow up to be of some use in the world.

It is possible that this and other remark-

able measures may account somewhat for the enormous death rate among the foreign population in this country. The wonder is, not that so many children die, but that any live, in view of the treatment they receive. A new baby, who was being cared for by a woman who was not trained to the business, made faces and put out his tongue as babies always do. The nurse concluded that this was a sign that the child wanted something, so questioned the mother as to whether she had had any unusual desire or longing for any article of food. She replied that she had longed for bananas, whereupon the attendant procured and fed to a little baby less than a week old a large piece of raw banana, and what is still more remarkable, the child survived—a dangerous experiment, and not worth the trying. Even where much greater intelligence is displayed, the results are often appalling.

The sacrifice of human life is terrible, even among intelligent people, and there is no possible doubt that many children die every year from neglect and bad management.

Fortunately, statistics show much improvement; nevertheless, if the facts could be made public, it would be a ghastly showing, for the sacrifice of lives still goes on.

Many ask how children ever could grow up in the days before sterilized milk and trained nurses were dreamed of.

There are many conditions that have to be taken into consideration, which a few years ago did not exist. For one thing, the art of living is much more complex than it used to be. Formerly women more generally nursed their babies, people did not live so fast, and mothers were not so nervous and hysterical. They were not crowded into such close quarters, and there were far more space and air. Tuberculosis had not made such rapid inroads and become such a menace. Large cities, such as we have now, did not exist. It is impossible to herd people together as they are herded now in flats, apartment houses, and hotels, without bringing a train of evils to the children which is simply incalculable. Parents have to be on the alert constantly to guard against these;

but, try as they may to stem the tide and save the children, the odds are against them. Every one must acknowledge that simple living is better, and that children brought up in the country have a far better chance. The death rate in cities is always far higher than in the country. Then, too, the great increase of foreigners has made much difference, and the tremendous death rate is largely made up from the mortality in this class, and is due to ignorance and neglect of the children.

The intelligent feeding of children is the most important factor of all, and when mothers have thoroughly learned this, it will do more toward reducing the mortality than all the other things combined. Experience is of course the best teacher, but the first baby needs as much care as the fifth or sixth.

Mothers who have never had any experience are very helpless when left to their own devices, and the responsibility of motherhood is often put upon young girls who are entirely unfit both physically and mentally for the task. With absolutely no training, and good sense and

judgment entirely latent, it is hardly to be wondered at that such awful failures result.

Neighbors and friends are kind and willing to do all they can, especially in the giving of advice which they do most freely, but this often, alas, leads to much trouble when followed.

A young girl whose husband had left her, arrived at the dispensary sick and forlorn. She had with her a small baby nearly a month old. The child's extreme pallor was very noticeable and close questioning brought out the following history. The poor, tired mother said that at first the baby cried and fretted a great deal and worried her very much, but a "lady friend" told her that she could get medicine at the drug store to give the baby to quiet it. The mother was unwilling, however, to do this because some one had told her that these quieting medicines were not good for babies. Another neighbor—a nurse!—told her to give him one teaspoonful of whisky with each feeding, which would be good for the child and would quiet it, too.

The mother added that the baby had been "awful good" ever since she began this line of treatment. Imagine giving a baby this dose! The poor little object was literally "dead drunk." It is not at all improbable that the neighbor meant this in all kindness, for people have most remarkable ideas about caring for children, nor is this instance as unusual as might be supposed.

A physician was called to see what ailed a child not two years old, in whose case certain symptoms had manifested themselves, so that the mother was alarmed. The physician found, after asking many questions, that the mother, a society woman, had been in the habit of giving the baby, every night, a large dose of whisky so that she could go out with a clear conscience(!) and know that the child was not screaming, but quietly sleeping. The diagnosis in this case was marked alcoholism.

These two instances are from the extremes of society, but the results were the same. Probably neither woman had any clear idea as to the permanent and evil

effect of such a course of treatment. Few women are so heartless as deliberately to try to kill their own children, but the fact remains, as has been said before, that many children die from ignorance or carelessness.

To care for children properly, an intelligent method systematically carried out is indispensable. Happy-go-lucky methods are neither wise nor safe; the problem is too serious for any haphazard schemes. A certain number of routine exercises have to be gone through with day after day. It is evident that the more methodically these things are done, the better it will be for the baby. It is superfluous to tell any one that night is the time to sleep, and yet many babies have to be taught to sleep at night, and do most of their eating in the day. The care of a baby commences at the beginning of his career, and, though his actual wants are few for the first three or four days, a watchful oversight and good judgment are necessary.

It is neither necessary nor advisable to make very numerous preparations for

the expected baby, but what things are needed should be ready for use and no time wasted running around for them when they are wanted.

Have on hand boiled water, which must be kept covered until needed; put it in a clean pitcher and cover with a clean towel. Besides this there should be plenty more in the kettle on the stove. A boracic acid solution will be needed; this also must be covered. It is made of one teaspoonful of the powder to a pint of boiling water.

Old muslin, olive oil, and the baby's clothes in which he is to be dressed, should be warmed and near at hand.

The very first thing to be done for the baby is to wash out his eyes, nose and mouth carefully with a warm boracic acid solution, then wash his hands with the same solution, as immediately after birth many babies put their hands into their mouths. Have squares of old muslin torn off ready for use; dip one into the solution, use it and throw it away, then take a fresh piece, use it and throw it away also. By so doing, the original solution can be used indefinitely and yet be

THE PROPER WAY TO LIFT A SMALL BABY IS TO HOLD IT BY THE FEET, AND SUPPORT THE BACK AND HEAD WITH THE OTHER HAND.

clean. Being very prompt about this is essential, and often saves much future trouble for the baby.

The mucus in a baby's eyes is very irritating, and, unless promptly and carefully washed out, often causes a discharge which may last many months. If, at first, the discharge is anything more than a small amount of secretion in the corner of the eyes, call the doctor's attention to it. Never trust to the judgment of any layman in this matter, but speak to the physician in charge, for any neglect may mean unsightly blindness. Too much is at stake to allow any but the doctor's opinion to be followed. It is estimated that twenty-five per cent. of the blindness in New York City begins in early babyhood. A discharge generally appears by the third or fourth day of life, which often leads ultimately to total blindness. Washing with boracic acid and promptly attending to the eyes cannot always prevent serious trouble, but will often mitigate the fearful results.

After the mother and attendant have had their hearts gladdened by the first

cry so earnestly longed for, and the cord has been properly fixed and cut, lift the baby by the heels with one hand, putting the other under the head. Place him in a piece of old muslin which can be burned later, wrap the whole in an old blanket, and have bags filled with hot water ready to put around the outside of the blankets. This precaution is necessary even in summer for the baby feels the change in temperature and is always cold until respiration is well established. Great care must be taken with the hot-water bags; they must be well covered, for the baby's skin is sensitive, and serious accidents have occurred when this precaution has been neglected.

Never allow him to become chilled, as colic is generally the result. It might be emphasized here, and will be spoken of again later, that in following this simple rule many hours of anguish and unhappiness are spared the baby, the family, and even the neighbors. In laying him down, observe great care to place him in a position in which he can breathe. More than one child has died because the attendant,

through carelessness or haste, laid him on his face and the mistake was not discovered until too late.

Respiration starts at birth; some babies are very slow to get it right, and it often takes much energy on the part of the doctor and the nurse to make him breathe at all, so this caution is given: be careful, and do nothing to impede it.

A baby came into a family which had long been childless. There was much rejoicing, of course, but even here one of those awful blunders was made, and the child when looked at after it had been laid down, was dead, suffocated by being placed on his face. Such mistakes are inexcusable.

In the excitement of caring for the mother, it is often impossible to do more than look at the baby from time to time, but this must be done frequently, not only to see, as has been said before, that he is breathing properly, but also to see that there is no bleeding from the cord. It sometimes happens that the ligature must be tightened, for the possibility of a hemorrhage must always be borne in mind. If

carefully watched, this is not likely to occur.

As soon as it is convenient, rub him well with warm olive oil or sterilized lard, cover him up again; then he may be left for several hours if necessary. When he is washed, however, great care should be taken that all the white cheesy substance, "Vernix caseosa," be removed from all the creases; under the arms, in the groins, and behind and in the ears. Later, many little babies suffer from eczema in these places as this cheesy matter becomes an irritant if left on the skin. After he is washed, the cord should be dressed with a piece of plain, clean gauze, held in place by a flannel binder, which by the way must not be too tight. It not infrequently happens that inexperienced hands pull the binder so tight that respiration is impaired. In the case of a foreigner this was done until the ribs were badly bent, and the baby moaned and cried feebly until the doctor discovered the cause. Much injury can be done this way, and makes the bands an element of danger if carelessly handled. Put over the band a

flannel shirt, then a flannel skirt and finally an outing flannel wrapper or something similar.

It is well to put a piece of old muslin, which can be burned later, inside the diaper, thus saving much washing for the first two or three days, as the discharge from the bowels is a thick, tarry, sticky substance, "meconium," very hard to remove. This gradually changes and grows lighter in color until digestion is fairly established, when the movements become normal, that is, light yellow.

After the toilet is complete, and the mother has had a nap, the baby should be put to the breast. The nipples and the baby's mouth should be carefully washed with a boracic acid solution, and this operation repeated before each nursing until the child is weaned.

This should be done for several reasons, one of which is that it helps get the nipples into shape for future use. It is good for the mother to have the baby pull at the breast for it is a prevention of uterine hemorrhages and promotes contractions, which is most desirable. Little babies

have more strength than is commonly supposed, and their attempts at nursing have a decidedly prophylactic value and are occasionally much needed. The effort also stimulates the glands into greater activity and increases the flow of milk. On the other hand, some women have lost their milk entirely when the precaution has been neglected. It is so much better both for the mother and the child that the latter should be breast-fed that every condition should be fulfilled that helps bring this about.

A woman came into the writer's office to engage her services for her coming confinement. On questioning the patient about her first baby the mother said she could not nurse him, that she never had any milk. In response to more questions as to whether she had taken milk freely before the baby came she said no—the other doctor did not tell her to. She said the child was delivered with instruments, and the doctor had told her not to have him put to the breast until after the third day, as he said there was nothing there and it would only worry her.

The physician's orders were obeyed, with the result that when the baby did try to nurse there was nothing for him and consequently he had to be given the bottle.

On this occasion the order was given to have the patient drink milk freely for the three or four months remaining. At the time of confinement no instruments were used, the labor being perfectly normal. In a short time, after the mother had rested, the baby was put to the breast, and this operation repeated every four or five hours until the milk came. The result was most satisfactory, the second baby was nursed entirely for ten months, and was a most beautiful specimen of what a baby should be. The first one was always sick and fretful during his baby days and developed into a nervous, peevish child, frequently taking cold and often sick. There is probably no reason why he could not have been nursed properly as well as the second child, but for the stupidity or carelessness on the part of the attending physician.

It is certainly astonishing how frequently the practice of having the mothers

drink milk before the baby comes, and putting him to the breast at regular intervals for the first three days after birth, is entirely disregarded by physicians. There is no doubt but that this explains why women who are anxious to nurse their babies are often unable.

There is still another reason for the baby's having the "colostrum," the watery secretion which the breast contains at first. It acts as a mild cathartic and helps to free the bowels of meconium, of which they are full at first. And, finally, it is the only approach to nourishment that the child is capable of assimilating for the first seventy-two hours of life. The digestive apparatus is entirely unfit to do any work, and the bowels are full of a substance which must be discharged before digestion can begin.

A teaspoonful of boiled water given two or three times a day, or once in six or eight hours, will also help, being good for the bowels and stimulating the kidneys into action. More than this for the first three days no baby should ever have. A young, inexperienced nurse tried the

experiment of giving a baby two days old a little milk. The child died in a convulsion shortly afterward. The attending physician was much surprised at the baby's death, as it was a healthy, normal child, and begged to have a post-mortem. In the stomach was found a ball of curds about the size of a small nut. On questioning the nurse, she said she gave him a little milk, and she knew it was fresh as she took it from the ice chest. It is quite safe to say that this nurse probably never repeated this blunder; one such mistake as this will do for a lifetime. If Nature had intended to have babies fed earlier, she would not invariably keep them waiting for three days. It is safe to assume that the plan is intentional, and when people officiously try to improve on it, disaster always follows. Another blunder which is frequently made, due to the eagerness of the attendant to give the poor child something to eat, is giving it sweetened water. If the mother has any colostrum in the breasts at all, this is slightly sweet and the water needs no sugar, which is more of an injury than a benefit. The

kidneys of the new baby are frequently slow to act. It is sometimes several hours before the child passes any urine. If the water is given regularly, they will start up eventually, especially after the milk comes, though they may act very infrequently until then.

Take great care to protect the eyes from the light, but, unless there is some strong reason for so doing, the room should not be darkened.

If the little baby cries much for the first three days of life, it is from pain or discomfort, and the most potent cause of the trouble is cold.

If the respiration is slow at first, it often takes a number of hours to get the child warmed so that the nails of the hands and feet are of the proper color. Such children have to be carefully watched.

It is just these cases where the mistake is so often made of feeding them because they cry, when really they need to be thoroughly warmed. It is very reasonable to conclude that if the child is cold because of poor circulation, such a thing as digesting milk is entirely out of the question. A

long train of evils follows in the wake of feeding milk to the baby before he is ready for it, the evil most in evidence being colic. That, like many of the other ailments connected with this event, is largely preventable.

Wait for three days before feeding the baby anything but boiled water, always keep him warm and dry, and the normal baby will sleep almost the entire time until regular nursing habits are formed.

Handle the new baby as little as possible, carrying him from the cradle to his mother to be nursed, and the necessary moving to keep him dry and warm will be quite enough exercise for him. For the first seventy-two hours, sleep and quiet are so important that visitors should be excluded, except the immediate family, and then the baby must not be disturbed. So much of the child's and family's future peace of mind depends upon proper management, that it is impossible to begin too soon to follow methodical measures.

RECAPITULATION

I. Have boiled water in pitchers and on the stove, and boracic acid and olive oil or vaseline, old muslin and a blanket near at hand.

II. Wash eyes, nose, mouth, and hands immediately.

III. Place hot-water bags outside of blankets which baby is rolled in.

IV. After he is well oiled, he can be left until a convenient time for washing, but when bathing remove all cheesy substance carefully.

V. Put baby to breast after mother has had nap, repeat operation every four or five hours until milk comes.

VI. Wash nipples and baby's mouth before each nursing.

VII. Give baby a teaspoonful of warm water (boiled) every six hours.

VIII. Protect eyes from light, see that the color of nails of hands and feet is normal, keep warm and dry, and handle as little as possible.

CHAPTER III

CLOTHING AND CARE FOR THE BABY

The proper kind of clothes for children is an important question, and requires much thought. Much energy and money are frequently expended for the first baby on things that later seem unsatisfactory, and they are discarded. As for the underclothes, there are three things necessary to be considered and of prime importance. Choose materials that are light in weight, that retain body heat, that absorb moisture. Silk looks very dainty, and is expensive (an item of attraction for some) but it does not absorb moisture, therefore it is not desirable. Linen is cold and has poor absorbing properties, and as babies are easily chilled this is not satisfactory. Cotton is very heavy and, excepting in summer, should not be worn; children who wear cotton underclothes always have cold feet and hands.

The selection is much narrowed when these fabrics are condemned and eliminated. There is nothing left but woolen, either plain or combined with linen or silk. It is far better used by itself, without silk or linen, and is the ideal fabric for shirts and bands for little babies. Most of the modern houses are heated to 68° or 70°, nearly summer heat, consequently it is wiser not to have very thick woolens. The medium weight in winter is quite warm enough, and the very light weight for summer. Keeping children too warmly dressed in the house predisposes them to colds and lung trouble, and makes them generally delicate. Regulate the outside wraps to match temperature outdoors, but in the house where the temperature is fairly even, very warm dressing is not necessary.

Babies should always wear high-necked and long-sleeved shirts for the first four or five months. After this, in the extreme heat of summer it is not necessary, and it is even allowable to take off the shirt if the child suffers from heat; but all babies, until they are three or four years

old, should never be without an abdominal woolen binder night and day. When the child is old enough to perspire during the heat of summer, take off all his clothes except his binder and diaper. If the heat is extreme the entire toilet need only consist of a binder, diaper, and dress, the latter entirely for appearance's sake, but no matter what the heat is, the binder must be left on the abdomen. At first, these binders are pieces of flannel torn off the straight way of the material and without hems, as they hurt the child. If the more fastidious consider the raw edge too plain, this can be pinked. After six weeks or so these should be given up and woven woolen ones used instead. Light weight for summer, and heavier for winter. If a child has any tendency to bowel trouble, either constipation or diarrhea, the band should be worn much longer than four or five years. Much of the intestinal trouble of adults could be cured by this simple but efficacious remedy.

The diapers come next in importance. They can be made of outing flannel, which is sometimes used, and is of course better

than nothing, but this and the fact that it is cheap are all that can be said for it. It does not wash well, for it grows harsh with much rubbing, and never looks well. Unless expense is a great item, it is not desirable.

Cotton birdseye is preferred by some because it is rather inexpensive, does not absorb moisture so quickly as linen and is lighter in weight. These reasons make it very popular and extensively used. If, however, the expense of washing need not be considered, fine linen is by far the best. Because it absorbs the moisture readily, the supply will have to be larger, and the diapers should be washed and ironed many times before using for the baby, for the more linen is washed and ironed, the softer and smoother it becomes. When it is used for the baby there is much less likelihood of chapped skin.

Never put a rubber cloth on a child unless to prepare him for some special occasion. There is a very nice stockinet called "stork cloth," which is made into drawers, and can be used if the baby is to be taken where changing the diapers is

out of the question, but this should never be used in the house for it is too heating. Have plenty of diapers. If economy must be practised, let it be in some other way. Wet diapers are exceedingly unattractive, and the most bewitching baby's charms are much impaired if he is not kept dry and clean. It requires a great deal of poise and fortitude to hold and admire a wet, unpleasant-smelling baby, and it always seems very unkind to the child to have no more respect for him than to be careless in regard to something which so decidedly detracts from the pleasure he might otherwise give.

The washing and care of the diapers is no small matter. No diaper should be used a second time unless it has been washed. In bottle-fed babies particularly, this is a big item; the urine is always more abundant and has a stronger odor. When the diapers are changed, they should never be left anywhere uncovered. There are few things more offensive than wet diapers hung around to dry. The simplest way to manage it is to have two covered pails or cans, not un-

like small garbage cans, which should be kept out of sight. Throw the wet diapers into one, and the soiled ones into the other, pour cold water into both pails with the addition of pearline into the pail with the soiled ones. Then keep the pails tightly covered and wash out the diapers every morning. The wet ones should be washed in hot soap suds, thoroughly rinsed, and then hung out in the sun. The soiled ones should be washed in the same way, and then boiled for fifteen minutes. Drying them in fresh air and sunlight is always far better, after which they should be ironed smooth. There should be enough so that it may not be necessary to use the freshly ironed ones the same day. Leaving them for twenty-four hours precludes any possibility of putting them on damp and giving the baby a cold. That this requires much time and work there is no denying; nevertheless the very best care that can be given to the baby is none too good, and the results make it entirely worth while.

Flannel skirts are also necessary, and should be of two weights, light and heav-

ier. The summer skirts can be made with cambric waists and have tapes to go over the shoulders, but the thicker ones for winter should have flannel waists with straps for the shoulders, so as to support the weight and not have it drag on the baby. These skirts should be made long enough to allow for turning up and pinning. It is so necessary that the feet and legs should be kept warm, and the circulation at first is so poor, that the child must be well protected or the feet will get cold.

White skirts are not necessary for small babies, for there is little warmth in them and a good deal of weight. It is foolish to put anything on a small baby simply for looks. When he can walk, a white skirt may be added to the list of garments, but before that it should be omitted.

There should be plenty of outing flannel wrappers; they are better than the ordinary slips for young babies and can be used for night dresses for several months.

Simple slips with very little trimming are the most appropriate, the only requirement being a plentiful supply, that the baby may be always clean and dainty.

Both the slips and the wrappers should be twenty-seven inches long.

Worsted socks or booties are necessary, and should be worn even in summer unless the feet are quite warm without them. As soon as the clothes are shortened, stockings should be worn as well as worsted socks. The stockings should be long and pinned to the diaper. Woolen or cashmere are best for the winter, but cotton will answer very well in the summer. Many people prefer short stockings as a matter of looks. In the heat of summer they will do very well, but as soon as it is cool, long stockings are better, and should be worn regardless of looks. The custom of making children wear socks in cool weather is little short of cruelty in this variable climate. Many disturbances of digestion and circulation can be laid to this foolish fashion of sacrificing comfort and good sense to looks. This also applies to children older than babies. Worsted socks or soft shoes may be used at first, the essential thing being warmth, of course, but as soon as a baby begins to stand on his feet, the shoes become a mat-

ter of importance. They must first of all be long enough. The feet of babies and young children grow very fast, and shoes that were long enough one month may be just too short the next. Never on any account let a child wear a shoe the least fraction of an inch too short. Much of the trouble that adults have with the feet comes from carelessness on this point in childhood.

The shoes should have wide toes to allow the feet to come down flat, and be rather snug around the ankle to keep them from slipping. Many children need stiffening inside the shoe to hold the ankle straight. Consult the physician if the child turns his feet when walking. The remedy is generally simple in baby days, but if neglected it is harder to overcome the difficulty. Little children should never step on cold flagstones unless the feet are well protected. If they are allowed to walk out-of-doors and are too small to wear heavy shoes, they should have rubbers large enough to slip on and off easily. The incongruity of putting heavy woolen leggings on a child and allowing him to walk on the

cold flags with thin shoes, is often seen, and is most productive of colds.

The baby's clothes should be shortened by the third or fourth month if possible, though the best time for this will depend upon circumstances; but by the time a child is three months old he needs greater freedom to exercise his legs and develop his muscles. At this age he can lie on the bed and kick and amuse himself a good deal of the time. After this, long clothes are a nuisance, and an unnecessary weight to carry. If the baby is a normal one and grows as he should, no extra burden is needed, for he will be quite heavy enough for his mother or the nurse.

In the matter of outside wraps, the essential thing is that the baby should be kept warm, but not perspire. For this reason, furs are not desirable as wraps for children. They are too heating. If children are allowed to perspire, bronchitis, pneumonia, and all disorders find them an easy prey. This climate is so changeable that the only safe way is to carry an extra blanket to use if necessary.

Babies have a marked predilection for

pulling off their mittens. The best way to circumvent this is to put the mittens on first and pin them with safety pins to the sleeves of the dress. By so doing they are more apt to be let alone until the wraps are removed. It is important to keep the hands warm as well as the feet, and active measures have to be resorted to or the baby will never have his hands covered. Veils are an abomination and should never be worn. If it is so cold that the baby apparently needs one over his face, he should be kept in the house, and not allowed to go out. Veils are a prolific cause of eczema on the face, as they become moist with the breath and then of course irritate the skin. If the hood of the carriage is not a sufficient protection and the baby's face chaps even if the day is not very cold or windy, rub the places where the skin is most sensitive with a little olive oil and bismuth.

Always use soft water for bathing a baby with a sensitive skin. Lycopodium makes one of the best powders that can be used. Some people object to the color and the lack of odor, but if prepared with a

little orris it has a very delicate, sweet smell, and the color is really no objection, while the healing properties are such as to make it far superior to ordinary powders.

Much has been said against the small baby carriages which have been in vogue of late, and with a good deal of justice. For ordinary use, they are only to be condemned. It is impossible to have the child in a proper position in one, or to save him from every jar. Only heavy, easy carriages are suitable for small babies who should always lie down in them. The nerves of babies are delicately poised, and they should never be bounced and bumped around. The carriages should be rather heavy, swing well on good springs, and the wheels should have rubber tires. If it is a question between no carriage or one of the small ones, it had better be no carriage, but let the baby be carried, thereby saving much fatigue and exhaustion to the nerves. In cold weather, if for any reason the baby is taken out of his carriage in order that his mother or the nurse may make a call or do some shopping, make provision of some sort to have the wraps warm when

the baby is put back into the carriage. If it is a call, the wraps may be carried into the house, but when shopping this may not be convenient. In this case a hot-water bag should be carried in order that there may be no danger of the baby's becoming chilled. Many cases of pneumonia have developed from this mistake, and it certainly is a great risk to run. If it seems as though most things so far suggested were out of the reach of people of limited means, or, at least, only the most expensive things were approved, the answer is that in the end expensive things are the cheapest; they wear longer and give the best return for the money. Anything that is a menace to the well-being of the child is likely in the end to be far more costly than one causing the spending of a little more money at first.

Trains, trolleys, and all public conveyances are not safe places for children. The same is true of shops where women and children are gathered in great numbers. At Christmas time, in the cities, in the crowded shops and cars there is always danger of contracting scarlet fever, meas-

les, whooping cough or other contagious diseases. Not long ago the writer saw a foreign woman with two little children, both whooping and vomiting at intervals, cheek by jowl with many other children apparently well, on a trolley car returning from the pleasures of sight-seeing. There was absolutely no escape for the children in that car.

In China smallpox is considered one of the children's diseases. The name translated means "heavenly flowers," and it is quite as common there as whooping cough is here. On one occasion, when one of the missionaries from that country was here she was riding in a trolley car when a woman entered with a bundle in her arms. The peculiar odor attracted the missionary's attention, and leaning forward she gently drew aside the shawl which covered the bundle, to discover a baby literally covered with the sores of smallpox. There was no way of knowing how many people, especially children, had been exposed that day. There is no question but that many epidemics are largely due to just this thing, women taking sick children

into public places where other children become the victims.

For some unaccountable reason, some people seem to think that all children's diseases, chicken pox, whooping cough, scarlet fever, and measles are necessities, and the sooner children are through with them the better. There can be no more stupid fallacy than this. Children are more apt to catch these particular disorders than adults, and they are often prevalent at certain times owing to carelessness or ignorance. But there is never a time when any one of the so-called children's diseases may not be a very serious, if not fatal, malady, with the exception perhaps of chicken pox. Many times when the cases are apparently very light, the after-effects are carried through life. Deafness, impaired eyesight, affected throat or lungs, and kidney disorders are some of the possible consequences of these same diseases.

Never on any account let a child run any risk of exposure to any contagious disease if it can be avoided. It is true that it may turn out to be a light matter but the possibility of something much more seri-

ous makes it unpardonable to run any unnecessary risk. It is not essential for children to have any of these diseases, and it is the wise mother who realizes the possible danger and takes no chances.

Babies and little children need the best care always. That many live with the poorest kind of treatment is quite true; and that many die from the same cause is also true, but that many more would live to grow up and become useful citizens if more intelligence were displayed in their management, is a self-evident fact.

RECAPITULATION

I. Use woolen shirts and bands.

II. Keep abdomen protected night and day with binder.

III. Avoid too heavy flannels.

IV. Use diapers once only, then wash, dry in sunlight, and iron them.

V. Cover baby's feet and legs with stockings and shoes, using short socks in warm weather only.

VI. Never let baby put feet on ground in cold weather unless protected by rubbers.

VII. See that hands and feet are always warm.

VIII. Use large, heavy carriage for babies and young children.

IX. Never put a baby into cold wraps—carry hot-water bag if necessary, but avoid chilling a child.

X. Avoid trolley cars, trains, and public places as much as possible, and never expose any child to contagious disease.

CHAPTER IV

FOOD FOR THE BABY

The normal food for all little warm-blooded animals is their mother's milk. Mother Nature ordained this a long time ago, and no improvement on her method has yet been found. Little human animals are no exception to this rule. Any other device adopted for supplying them with nourishment is only a makeshift, and any baby who is deprived of his natural food is handicapped in a struggle often hard enough at best.

Many women are not able to nurse their children because they do not appreciate the necessity for any preparation on their part to enable them to perform the task. Comparatively few mothers deliberately refuse to do this because of the trouble or inconvenience, although it must be confessed there are some as unnatural as this. The more intelligent people become in this mat-

ter, the better the baby's chances are for having his natural rights. The necessary qualifications which make the ideal conditions are both mental and physical. If a woman is anxious to nurse her baby, and is willing to adjust her manner of living to the way best for accomplishing it, one great element of success has been attained.

A woman with a baby ten days old was being remonstrated with for eating baked beans and cabbage. She had been indulging inordinately in these viands, and the baby had a terrible attack of colic. No amount of talking convinced her that it was wrong to do anything so detrimental to the child's health. She refused to deny herself anything she wanted, remarking that the child would grow accustomed to it.

For the first three months, the baby did not grow well, and had many attacks of colic; after that he did better, but when he was fourteen months old a sharp attack of bowel trouble was too much for him, and he died. Just how much his mother's selfishness had to do with his untimely death, of course no one can say, but that it played some part in his inability to resist when

a hard test was applied is a self-evident fact. The history of many babies' lives is like this.

The mother's diet, exercise, and sleep, in fact her entire manner of living, may have to be changed in order to bring about the proper conditions. The diet is so closely connected with the baby's that it has to be carefully regulated, and, as with the pregnant woman, only easily digested foods should be taken, and all rich, highly seasoned dishes entirely omitted. There is no escape for the mother during the first years after the children come, it means much sacrifice and self-denial. This is one of the great privileges of motherhood, and the willingness with which it is assumed largely determines the results. Emotional mothers do not make good nurses. Those who have an hysterical, uncontrollable temperament, or women who are unwilling or unhappy about nursing their babies can never do it well, or have happy, healthy babies.

Sometimes cases are seen of women who are far from well who do nurse their babies successfully, and the children thrive, but

these are exceptions—not the rule. The best nurses are healthy in both mind and body.

In a poor Italian household a little bedridden cripple was practically the head of the family. He was the oldest of a large number of children, most of whom slept in his room with the father and mother. The latter was a tired, childish woman, with a most ungovernable temper. When the sixth baby came things were in a sorry state there. The child was puny, and fretted a great deal. Finally, after the baby was three or four months old, the little invalid told the doctor that the baby cried so much at night he could not sleep, and it was evidently making him tired and nervous. The doctor explained to the boy that his mother must learn to control her temper as every time she became fearfully angry her milk was affected and the poor baby had pains and could not help crying. The little fellow took it all in, for he was unusually intelligent, and said he would explain it to his mother who could not understand English, and had to have the boy interpret for her.

A short time after the boy was very forlorn, and upon inquiry, the answer was that the baby had been very bad all night, and he could not sleep. The doctor asked, "Has your mother been fighting again with some one?" and the little fellow, who was always loyal to his mother, but so truthful that he could not possibly prevaricate, replied, hesitatingly, "Yes, she had a terrible time the day before with a neighbor." Just then the mother appeared, and the boy turned on her with his eyes blazing, saying, "What did I tell you? You made the baby sick because you acted so; you have no right to make the baby sick." All this was in Italian, but he turned and explained what he was saying, adding naïvely, "I cannot make my mother understand how much depends upon her." There is no question that if a woman cannot control herself it is better that she should not attempt to nurse her child, for, as in the case of the Italian mother, the milk may become positively poisonous. Mothers have killed their children by nursing them after getting into uncontrollable passions, the milk having become so poisoned.

Of course, if a mother has a chronic disease like tuberculosis, for instance, it is not proper for her even to attempt to nurse her children. In these cases, the food should be carefully prepared under a physician's directions.

The advisability of drinking beer, porter, or any form of stimulant to increase the supply of milk is questionable. Though often advised by physicians, it is certainly not the best way to accomplish the desired end, for while the quantity may be increased, the quality is not improved.

A physician prescribed porter for a patient who did not seem quite well, and it was feared that the baby would not thrive as he should. After this régime was adopted the baby began to droop and could not retain his milk. The supply of porter gave out, and while waiting to have it renewed, the boy improved. When the porter was taken again, he was affected the same way; vomited his food, and became decidedly sick. Then the porter was stopped, and the baby began to improve immediately. For other reasons than this one given, the practice of drinking any-

thing of this kind cannot be wise. The evil effects are far-reaching, and there are better ways of improving the milk supply.

Many cases have been seen of nursing babies who would drink beer or even whisky with apparently great relish, a fact which makes it specially unwise to give it to a nursing mother. Too much importance cannot be made of the necessity for regular exercise for the mother in the fresh air, and she should have plenty of easily digested food with milk in abundance to keep up the food supply for the baby. Until the baby is three days old, the diet for his mother should consist of milk, gruel, milk toast, and carefully cooked cereals. After her milk comes, she can have full diet, but nothing about which there is any question of fermentation. Such vegetables as cabbage, turnips, cauliflower, and tomatoes should not be given until the baby is four months old at least, and even then certain things may cause discomfort and cannot be indulged in until the child is weaned. Though certain articles of diet disagree with some women, it does not necessarily follow that all other nursing women should

be deprived of the same things, but it does mean that when it disagrees with her baby, no woman should eat anything because she specially likes it, for during baby days the welfare of the child is the most important thing to be considered.

Worrying, fretful, or morbid temperaments always affect the milk. It is a well-known fact that great mental anxiety will cause the digestive apparatus to stop normal work at once. This is shown time and again in nursing women who suddenly find themselves unable to nurse their babies because the mental balance has been disturbed. If a woman continually worries and frets, she is bound to have a fretful, whining baby. Here is another proof of the fact that the child's temperament is very largely in the hands of the parents, and that his condition of mind and body are very closely allied.

On one occasion, a small baby was very ill, and it was deemed advisable to try a wet nurse; so at much inconvenience one was procured, and brought to the house late at night. The woman was a young, fine-looking foreigner, and the mother of

the sick child was delighted at the prospect of having some food for her baby which could be retained. Her pleasure was short-lived, for the young woman was so frightened at coming among strangers, and her distress so great at leaving her own baby, that when she tried to nurse the sick baby her milk was entirely gone, and it was entirely out of the question to get any one else for several hours. Fortunately some new combination was found which the sick baby could retain, thus saving the day, or the result would have been serious. Nursing mothers often have to learn to take life easily before they can be great successes, and the entire experience from first to last means for any woman a long process of training, quite as much for herself as for the child.

The case of a baby who needs a wet nurse because his mother cannot nurse him, and no combination of modified milk can be found that will agree with him is fortunately rare, for a good wet nurse is almost an impossibility. If for any reason one has to be obtained, the physician should make the selection, as it must be done with

great caution. All the rules for a regular, simple diet laid down for the mother should be most rigidly enforced in the case of the wet nurse. She should, of course, be temperate in habit, clean, and healthy. Her own baby should be nearly the age of the child to be nursed, and she should never try to nurse both of them. As a rule, foreign-born women make the best nurses; but too often living in different surroundings, and eating unaccustomed food gives them indigestion and consequently causes their milk to disagree with the baby.

It is desirable to have rather a young woman; and both she and her baby should be examined by the physician before she is engaged, and her moral character should be investigated as well as her physical condition. It is found too often that they are unscrupulous and dishonest, giving the baby other food than breast-milk, and the habit of indulging in stimulants is very common. Unless the woman is known to be honest and respectable, the risk is very great and the results rarely satisfactory. She should, of course, have plenty of exercise in the open air, a well-ventilated

room, and an abundance of digestible, nutritious food. Nevertheless, it is well to remember that a woman taken from the lower walks of life, and given unrestrained opportunity to indulge freely in food to which she has been unaccustomed is very apt to eat too much, and to exercise too little. What has already been said about a mother not using beer or ale or porter to increase the milk supply applies with still greater force here. Never on any account allow it to be given to a wet nurse. If she needs bracing up in this manner, she is not fit for the position.

If by any chance a very superior person is found, and one apparently well qualified, a wise mother will never hand over the care of her baby entirely to her, but will exercise a careful supervision over everything that goes on, particularly at night. Perhaps another piece of advice is not amiss here; if a wet nurse is engaged, she should not be expected to do hard work like the family washing, and if the baby does not thrive at once, it is quite natural, for such a change for the woman is bound to affect the milk. She should be given a

chance, unless it is dangerous for the child, and not found fault with because the baby has a pain, and cries a good deal for the first day or two after the new order has commenced.

There is no objection to giving a nursing baby the bottle once a day after the first month or six weeks, and there are some advantages. For one thing, many women are stronger and have better milk if allowed to sleep through the night. By giving the baby the bottle at five or six o'clock in the morning, the mother may be materially benefited, and it does no harm to the baby.

It is often a matter of great convenience for a woman to be able to leave her baby for several hours. If he is used to the bottle this is easily managed, and when the time comes to wean him it is comparatively simple to give the bottle twice a day, then three times, and so on until he takes it entirely. The process should be slow enough to enable the child to grow accustomed to the change. A month is a very good time to allow for weaning unless circumstances make greater haste necessary.

The age when a baby should be weaned depends upon circumstances—as a rule, a baby should not be breast-fed after he is a year old, even if the mother is healthy and the milk supply good, and it is generally wiser to do this by the ninth or tenth month. Individual cases require different treatment. No absolute rule can be given. If the child has good color, sleeps well for two or three hours after nursing, or, if awake, is quiet, good-natured, and apparently comfortable, the movements from the bowels normal, and he is gaining in weight, these are the signs by which any one may know that the baby is well nourished. The normal baby should double his weight in six months, and treble it in a year. Of course this varies somewhat. All children are not alike in the manner of gaining, but the increase should be comparatively even. He should grow about eight inches the first year, or nearly three-quarters of an inch a month. Ordinary babies by the tenth or eleventh month should begin to have something more than milk—gruel, oatmeal, beef juice, etc., are necessary—but milk should be the princi-

pal article of diet through the second year. Hard crackers are much relished when the teeth begin to come; these are better if they are not sweet. Well-cooked cereal and mutton broth can be given to a child a year old. When the mixed diet begins, the bottle should be taken away entirely, and all milk should be given in a small cup. It is a great mistake to allow a child to drink from a bottle after he is a year old.

Something must be said about the thoughtlessness and cruelty of giving little children tastes of different articles of food to entertain the adult members of the family. Very small babies are apt to be exempt from this practice, though not always. A very proud, smiling young mother was showing off her firstborn at clinic, a fat, red-cheeked baby in long clothes. In answer to the question if she gave him anything besides breast-milk, replied, "Oh, yes, ma'am; ladyfingers and beer, and he likes it awful much."

As soon as a child is old enough to begin to notice, there seems to be a peculiar temptation to feed him potatoes, meat, bread, or anything that the family eats.

Tastes of tea, coffee, and even beer are also tried, with the result that very soon children learn to like these beverages.

A very beautiful boy who could just walk was toddling around the dining-room begging for the last drops of coffee in the bottom of the cups; and the various members of the family were giving him little drinks, because it was so "cunning" to see his evident pleasure. Later, the same child was asking for the last drops of whisky which some member of the family had. On remonstrating with the various ones for their foolishness—to call it nothing stronger—the answer was, "Oh, he only has a little, and he looks so sweet when he drinks it!" It is not surprising to learn that this particular child had several convulsions. What the future holds for him, no one knows, but a poor ancestry added to his most lamentable lack of training promises little good. And the pity is that the children have no fair start, but are ruined before they know their right hand from their left. Tea and coffee both contain a very strong heart stimulant and alkaloid, caffeine. Added to the caffeine in tea is another disastrous

substance, tannin, which, if taken in large enough quantities, will corrode the mucous lining of the stomach. Inveterate tea-drinkers have the worst form of nervous disorders and the habit is a very hard one to cure. That coffee is a tremendous stimulant, may be readily imagined when it is known that it is one of the most important antidotes to be given in case of poisoning by morphine, that most powerful of narcotics. Of course the doses given to children are small, but why give a child small doses of poison, which he does not need, because he looks sweet, or to amuse other people? It seems as though any one with the least bit of common sense would never allow such heartlessness. And when it comes to drink stronger than tea and coffee, words fail to express the feeling of abhorrence which any right-minded man or woman must have.

An official of the United States Government boasted that his six-year-old son could drink more whisky and champagne than many an adult, and that the night before he was relating this outrageous boast the same child had rolled under the table in a

regular drunken stupor. And the father was seemingly proud of this fact. There is no physician who has not seen more or less of these cases—children with all degrees of nervous disorders, where tea, coffee, and other things have been given them from early baby days. No further proof is needed than a visit to some of the institutions in our cities, for backward and feeble-minded children, and hear the history of these children related. Very often one of the predisposing factors is the result of the stimulants given during babyhood, which cause the sensitive nervous system to succumb.

A large number of children in this country have to be brought up on the bottle, a fact to be deplored, but nevertheless true. It is always more difficult to manage these cases, for a bottle-fed baby is more apt to have digestive disturbances, and is an easier prey for any illness. Much of the difficulty would be eliminated, though, if proper precautions were exercised about handling and preparing the milk, and cleanliness of the bottles and nipples.

To have any intelligent idea how to pre-

pare milk for a baby there must be some understanding of the various ingredients, and how these compare with human milk. Because cow's milk is most available, it is generally used as the substitute for the mother's milk.

Milk is composed of fat, sugar, proteids, salts, and water. All these elements are necessary, and we cannot expect to bring up a healthy baby unless all these are in his food. The *fat* is needed for the growth of the bones, nerves, and flesh. *Sugar* also makes fat and heat. The *proteids* are needed for the blood, the organs, and muscles. *Salts* are needed particularly for the growth of the bones. *Water* is needed to keep these in solution, and is necessary to enable the body to get rid of the waste matter.

ANALYSIS

HUMAN MILK

Fat ..... %	4.00
Sugar	7.00
Proteids	1.50
Salts	0.20
Water	87.30
	%100.00

Cow's Milk

Fat	%	3.50
Sugar		4.30
Proteids		4.00
Salts		0.70
Water		87.50
		%100.00

At a glance it will be seen that none of the ingredients of the two kinds of milk just match, and as the point is to make the substitute as nearly like the original as possible, there will have to be some alteration. These alterations are made by combining cream [fat], full milk, that is the cream shaken up with the milk [proteids], and sugar and water in various proportions, and the result is *modified milk.* The average cow's milk contains approximately 4% of fat, 4% of proteids, and 4% of sugar. More than twice as much proteids as human milk, and much more indigestible, and about half as much sugar. It is matter of great importance to change this milk, for few children can digest it unless it is modified. The proteids then,

or curds, in the cow's milk must be diluted, the sugar and the fat increased. The ingredients in cow's milk which cause most of the trouble for the bottle-fed baby are the proteids or curds—and the fact that there is so much more of this, and of different quality, makes it necessary not only to reduce it a great deal for ordinary feedings, but wherever it is given to a baby who is not accustomed to it, as a new baby or one who has been nursed, and for some reason must have other nourishment, the milk must be made weak. This is a most important point to remember, because the baby's stomach was not intended for this food and it has to become accustomed to it gradually or there will be trouble. A weak food can be easily strengthened with no disturbance to the child, but if the food is too strong there is bound to be woe. In starting then with a new baby three days old the following is a very good formula. Though it may need some modification to meet special cases, it will be found fairly suitable for the average child which weighs from 7 to 7½ pounds:

Milk (full) ..... 1 oz.
Cream ..... 2 oz.
Water .....21 oz.
Sugar (cane) ..... 3 teaspoonfuls
or Sugar of milk..... 6 teaspoonfuls

If the bowels act properly, the baby sleeps well, does not vomit his milk or have colic, in three days the mixture can be strengthened by the addition of 4 teaspoonfuls of cream, and 4 of milk. If this goes well, at the end of three more days the mixture can be strengthened by the same amount in the same way, and also a little more food may be given at each feeding. Half an ounce or 4 teaspoonfuls is enough of an increase at a time. The stomach at first has the capacity of about one ounce, at two weeks it has about double; after this the increase is more gradual, so that at six months it is about six ounces. The amount to give at first for each feeding is one ounce. After a week the amount may be increased to 1½ ounces, and in another ten days two ounces may be given. No absolute rule can be given as to the exact amount to give at a feeding, nor just when to

make the food stronger. These questions must be settled by the needs of each particular baby, but the changes in amount, and the increase of strength of the food are made more rapidly the first month than later. It is not uncommon to use the same formula from the time a child is two or three months old until he is weaned, the amount of each feeding and the intervals only being changed to meet the growing needs of the child. It is usually wiser to make the food somewhat weaker during the hot summer months, and this is done generally by giving less fat or cream. The indications that the baby is thriving, which is the guide for continuing any formula, are that he sleeps quietly two or three hours after his meal, that he is happy and contented, gains in weight, and has normal movement from the bowels every day. On the other hand, if these evidences are not seen, but instead he shows any of the following, he is not having sufficient food. If he clutches the bottle, drains it eagerly, cries when it is taken away, and cries half an hour or an hour before feeding time he is showing plainly that he is hungry, and

wants more to eat. The child should be weighed regularly each week, and all the peculiarities of sleep, crying, and movement of the bowels noted. The intelligence which is displayed in these matters marks the difference between a good and a poor nurse.

Not infrequently the formula used is not suited to some particular baby, and needs to be changed. Here again only a few suggestions can be given as to the possible cause of the trouble, but these, if rightly understood, will help to remove the difficulty. If the child does not gain in weight without any special signs of indigestion, increase the proportion of all the ingredients; if he has habitual colic, diminish the proteids, and also give a weaker food at night; for frequent vomiting just after eating, reduce the quantity; for the regurgitation of sour masses of food, reduce the fat, and proteids, too, if necessary; for obstinate constipation, increase both fat and proteids. Before making any change in the formula for the food, see that the baby has plenty of water to drink every day. The importance of

giving babies water can hardly be overestimated. It is one of the surest and easiest ways to overcome constipation. One mother complained that her baby cried a good deal, and seemed to be constipated. When asked if the baby had plenty of water to drink, replied, "Oh, yes. She always has the wash cloth to suck every day when she has her bath!"

Great care should be given to the selection of the milk. It should never be bought in the bulk, for it is impossible to keep it clean, and that makes it entirely out of the question. It should come from a clean, sanitary dairy, the cows should be healthy, and all those who handle it should be inspected to be sure that nothing which could contaminate it comes in contact with it. Milk from a mixed dairy is better than from one cow. The milk from a highly bred Jersey or Alderney, is too rich. The manner of transportation is also important. It should be in glass bottles, tightly sealed, and warranted to be thoroughly hygienic. In the city it should not be used after it has been kept in the house more than twelve hours in the sum-

mer, nor twenty-four hours in the winter. Then, too, the method of preparing it for the baby is a matter of great moment, for not only must the formula be carefully and exactly followed, but the manner of preparing it, the receptacle that it is put in, and finally the kind of ice-chest used are all matters to be considered.

A sufficient quantity should be made in the morning to last for twenty-four hours. From two bottles which have been allowed to stand until the cream has risen, the food should be made. According to the formula given, one ounce is taken from one bottle in which the cream has been shaken up with the milk—this is full milk —and from the other bottle only the cream is used, two ounces being taken. In order to be exact, it is easier to use a small ounce dipper which comes for the purpose. Mix the milk and cream together, add twenty-one ounces of water which has been boiled, and dissolve the sugar in this. Then pour the entire mixture into a clean receptacle, cover tightly, and put it into the refrigerator. That the refrigerator should be absolutely clean goes without

saying, and yet, spoiled milk owing to a faulty refrigerator is to be blamed for many an acute attack of indigestion. The compartments of the refrigerator should be so arranged that the bottles of milk are either in contact with the ice or very near it, and the supply of ice should be abundant. Often the amount of ice is so small, and the bottle so far away, that the temperature of the milk is never below 60° or 65°. To be really effective, the milk should be kept at a temperature not over 50°. In order to insure this, the temperature should be tested with a thermometer from time to time. Next to the bottles used, the refrigerator is the one thing which should receive the closest attention.

Not the least important in this great subject is the care of the bottles. If they are not in a proper condition it is of little avail to have "certified" milk, or to take any precaution, in fact. No one will ever know how much of the infant mortality is caused by dirty bottles, but that it is a great factor in the death rate is self-evident.

All the bottles should be washed with hot water and soap and boiled *every day.* Afterward, they should be covered and kept free from any dirt. Wide-mouthed bottles with no creases are the best. There should be no complicated bottle or nipple, and everything should be as simple as possible. Absolute cleanliness is the one essential, and the simpler the mechanism of everything used, the easier it will be to have this.

The hands of the nurse should be perfectly clean, and a brush used to wash the bottles. New nipples should be boiled for five minutes, but after this they need not be boiled often, for they soon become useless. After using, they should be carefully rinsed in cold water and kept in a covered glass containing a solution of borax or boracic acid. At least once a day they should be turned wrong side out and thoroughly washed, just as the bottles are, with warm water and soap. A brush should be used for this, and it should be clean, of course. It is a very good plan to have as many bottles as there are to be feedings. The amount of milk to be used for

each time is put into separate bottles, and absorbent cotton is used for stoppers. No bottle must be used a second time unless thoroughly washed—this rule must never be violated. After the food mixture has been prepared, and put into the bottles or whatever receptacles are used, it must be cooled rapidly, first by letting the bottles stand in tepid water, then in cold water, and afterward placed on the ice. If for any reason the milk has been Pasteurized or sterilized, this should have been done before cooling.

Each bottle as it is needed should be taken from the ice-chest and put into a pitcher containing enough warm water to entirely cover the milk. After it is warm, shake the milk thoroughly, adjust the nipple, but see that the hole in the bottom of the nipple is only large enough to allow the milk to come out slowly. If there is any question about the temperature of the milk, pour a few drops on the wrist, or into a spoon and taste. *Never let the nurse or any one else put the nipple in her mouth to make the test.* The water that is used to heat the milk should be

between 98° and 105°. Use a thermometer for this, to be exact. The nurse should hold the baby while he is feeding, and the baby should finish in twenty minutes. Never let a child form the habit of sleeping with the nipple in his mouth. Keep him awake till he has finished, and then take the bottle away altogether. After a child has been fed, never play with him, leave him alone, let him lie quietly, and disturb him as little as possible.

Milk, when carefully handled, contains many germs, and if carelessly handled the number is enormous. While most of these are quite harmless, simply causing the milk to sour, occasionally they are the germs of scarlet fever, diphtheria, typhoid fever, and many forms of diarrhea. If, then, there is any question about the source of the supply, or if the weather is too hot to keep it and there is no way of obtaining ice, something must be done, as it is too serious to trifle with such conditions. By heating the milk to a temperature of 212°F. and keeping it at this for one or one and one-half hours it is made sterile, or is "sterilized milk." It is safe to use

milk treated in this way if kept on the ice for two or three weeks. Sterilized milk is always more indigestible than ordinary milk and is constipating, and it has to be modified the same as milk which has not been sterilized. Under no circumstances is it to be used for a long time. Children are never strong that have been fed exclusively on milk so prepared; the nutritive properties are so changed as to make it an impossible food for continuous use. It is often a factor in scurvy. Nevertheless, it is useful in epidemics, or on journeys when satisfactory milk cannot be procured. By heating milk for thirty minutes at 155° F. it is "Pasteurized," and this temperature is sufficient to kill the germs of the ordinary diseases before mentioned. It is not constipating nor is the taste of it affected, but there is a chemical change so that fresh, pure milk is always better for a baby, and much to be preferred to any method which changes the composition. Pasteurized milk is used in many cases for long periods of time with no apparent ill affects, but if the supply can be guaranteed to be proper it is better not to tamper

with the natural state. Pasteurized milk will keep on the ice two or three days, and while the living germs are destroyed by a temperature of 155° F. there are many undeveloped germs or spores which are not destroyed, and which grow into living germs under favorable conditions. It is perfectly possible to have milk so dirty, or old and contaminated that neither sterilizing nor Pasteurizing will render it fit for use. A point to be remembered about Pasteurized milk is that it must be cooled rapidly before it is put in the refrigerator. Never let it stand in the room, or put it near the ice when warm. If the milk is cooled in the room, or in the ice-box it requires from two to four hours to do it, and meanwhile many undeveloped germs may mature and spoil the keeping properties. To cool rapidly, put the pitcher or bottles into cold water, and change the water often, or add cold water to it; by so doing the milk will cool in ten or twenty minutes.

There is another prepared milk which at times is very useful, viz., peptonized milk, or milk with the proteids partially

digested. Occasionally a very young baby is unable to digest the curds, so peptonized milk is given until he has learned to do his own digesting. A digestive agent is put into a powder called peptogenic milk powder and this is put into tubes or tablets. The milk is peptonized in the following manner. Into a tablespoonful of milk the powder is put and well rubbed up. This is put into the bottle or pitcher with the plain or modified milk, and the whole is shaken up together. The bottle is then put into a large pitcher containing water heated to about 110°F., or as warm as will bear the hand comfortably, and left for ten or twenty minutes if the milk is to be partially peptonized; for two hours, if it is to be completely peptonized. If this is done for only ten minutes there is no taste to the milk, but at the end of twenty minutes it begins to be bitter, and for any but very small babies cannot be used frequently.

Completely peptonized milk may be used for a few days or even longer; partially peptonized milk may be used for a longer period, but not indefinitely, and should be

left off gradually by shortening the time of peptonizing and diminishing the amount of powder used. This preparation should be used only with the advice of a physician.

It is possible that an emergency may arise when it may be excusable to use one of the numerous proprietary foods with which the markets are flooded, but the cases are few and far between. As a regular diet, they are undeniably deleterious. Physicians very generally concur in the opinion that the satisfactory, artificially fed baby is the one who has had, not sterilized or Pasteurized, but straight, clean modified cow's milk, always rightly prepared. And it is unusual to find a baby who cannot thrive on this diet. It sometimes takes patience to modify it just right, but it is quite possible to do it. The trouble, though, that is caused by dirt and carelessness will never be known—for one or the other of these two evils is what causes the vast majority of illnesses to which babies are prone, and the afflicted children are found in all walks of life. There are many intelligent people who never realize that they can only do the correct

thing for the baby by taking great care about the cleanliness of the refrigerator, and by seeing that the milk is not left standing in a hot kitchen for two or three hours, and that it is properly covered when put in the ice-box, and that no irregular thing of any kind is allowed.

Indigestion was brought on in one case because the nurse always brought up the bottle containing the baby's early morning meal, and let it stand all night in a warm room, to avoid going downstairs after it when she wanted it. It is rarely safe to trust the preparation and care of the food entirely to an ordinary servant, and all servants need some supervision.

When women realize that the great majority of deaths in baby days are caused by digestive disturbances, and these disturbances come almost entirely from carelessness or ignorance, things will improve. It is appalling to see how casually this subject is treated by so many, many people, and the hopelessness of it is that they seem perfectly incapable of grasping the facts and comprehending the purport of it all. The greatest of all the factors

here is cleanliness; absolute cleanliness for the milk supply, the bottles, nipples, brushes, receptacles, hands, and refrigerators, and when this fact is mastered the rest is easy.

RECAPITULATION

I. The mother's milk is the proper food for the baby. Everything else is a makeshift.

II. The mother's manner of living, sleep, exercise, and diet should be carefully regulated to this end.

III. The mother should willingly and gladly do this, and learn, if necessary, to control her emotions, not to worry, and to take life easily. A fretful, morbid temperament means a fretful, whining baby.

IV. No woman with any chronic disorder like tuberculosis should try to nurse her baby.

V. Do not drink ale, beer, or any stimulant to increase the milk supply; instead, eat proper food, exercise in the fresh air, and drink milk in abundance.

VI. If it is deemed best to have a wet nurse, the physician should select her, and the nurse's baby should be of the same age as the child whom she is to feed. The same rules for hygienic

living which apply to the mothers apply here. She should be carefully watched.

VII. It is quite proper to give a nursing bottle once a day after the baby is a month or six weeks old.

VIII. The ninth or tenth month is usually a very suitable time to wean a baby. Each case must be judged according to the particular baby in question.

IX. Allow plenty of time to do this—a month is none too long to accustom the baby's stomach to the exclusive diet of cow's milk.

X. After the tenth or eleventh month, broth, gruel, etc. may be given, though milk is the staple article of food during the second year.

XI. As a rule, no baby should be nursed after the twelfth month, and no child should be allowed to drink from the bottle after this time. He can drink from a cup quite well.

XII. Never allow a baby to have "tastes" of tea, coffee, or any viands which the family eat. It is pernicious.

XIII. Cow's milk must be modified to be as nearly like mother's milk as possible. The proteids must be diluted, the fat and the sugar increased.

XIV. When cow's milk is given to the baby for the first time, always have the preparation weak. It is a simple matter to make it stronger

when the baby's stomach has grown accustomed to it.

XV. Whatever formula is used, be exact about preparing the food, and give the baby plenty of fresh, pure water every day.

XVI. Exercise great care about the selection of the milk used, and that it is prepared, and transported in a thoroughly hygienic manner.

XVII. In preparing the food, always mix the full milk and cream together, then add the water (boiled) and sugar. Prepare a sufficient quantity for twenty-four hours at a time.

XVIII. Have the refrigerator, and all utensils perfectly clean.

XIX. No bottle should be used a second time without being washed thoroughly, and all the bottles should be boiled once a day.

XX. New nipples should be boiled before using. After this they should be washed each time, and turned inside out, washed with hot water and soap with a brush, then kept in a covered glass jar in a boracic acid solution.

XXI. The milk after being modified should be cooled quickly before it is put on the ice, and Pasteurized milk also, should be treated in the same way.

XXII. When the milk is wanted, heat by placing the bottle in a pitcher of warm water heated from 95° to 105° F. See that the opening in the

nipple is only large enough for the milk to run slowly, and never allow any one to test the heat by putting the nipple in the mouth.

XXIII. Heating milk from one to one hour and a half at a temperature of 212° F., sterilizes it. In times of epidemics, or far journeys this process is valuable, but it should never be used for a regular diet.

XXIV. Pasteurized milk is heated for thirty minutes at a temperature of 155° F., and is useful if the milk supply is questionable. Get pure, fresh milk as soon as possible, for no alteration equals the original.

XXV. Peptogenic milk is useful for a very limited period, and partially peptonized milk can be used longer, but neither of them should be kept up indefinitely, and the latter should be stopped gradually as soon as the baby can digest his own meals.

CHAPTER V

BATHS FOR THE BABY

Plenty of baths are as essential as plenty of air, and from the first day of life till the last, the bath is most important. It stimulates the skin, strengthens the muscles, and is a material adjunct to health. The first few baths for the baby must be given in the nurse's lap until the cord has dropped off, and the cicatrix has pretty well healed. The temperature of the water should not be above 100°F. and after two weeks may be reduced to 98°F. The temperature of the room should be 70°, and it seems hardly necessary to say that there should be no draughts; if it is possible to give the bath before an open fire, so much the better. Soft water or rain water is preferable, for it is less irritating to the skin, while for a young baby, the water should be boiled. Soft water is

better for any skin, and can be used with much comfort long after baby days are over. The nurse should wear a flannel apron, of which the most satisfactory kind is made from two small blankets with the ends sewed together, thus making one long blanket; strings are sewed to the seam, and when tied around the waist will allow the nurse to spread one blanket on her lap for the baby to lie on, while the other can be thrown over him, thus avoiding any exposure to colds.

Wash the face first and dry it, then soap the head and wash carefully behind the ears and in the creases in the neck, which must be very well done with fat babies. All the creases must be thoroughly dried, and dusted with powder. Care should be exercised about the soft spot on the top of the head. It is no economy to use cheap things for the baby; they are always the most expensive in the end. Fine soap, even the most expensive, is none too good. Castile and Ivory soap are both pure, but they are somewhat harsh, and leave an odor not altogether pleasant. There is a liquid soap made of

palm and olive oils which is very smooth and non-irritating.

After the first bath or two only little soap is needed; all that is necessary is enough to insure cleanliness. By the time the baby is two weeks old he is ready for the tub. After his face and body have been washed, take him by the heels with one hand, supporting the head and back with the other hand and arm, dip him into the tub, which should contain a generous supply of water, so that he will be entirely covered, then rinse him off, only keeping him in long enough to accomplish this thoroughly. After this, roll him up in a towel or blanket and pat him until he is dry, taking care to dry thoroughly between the fingers and toes. If the baby is put into the tub from the beginning, he will never be afraid of the water, and the slight shock he receives is good for him. By the time he is six months old, the temperature of the water should have been reduced to 90° F., and in summer it can be even cooler.

Milk crust, that disagreeable brown crust so often seen on children's heads, is due

SUPPORT THE HEAD AND BACK FIRMLY WITH ONE HAND WHILE BATHING THE BABY IN THE TUB.

to an accumulation of oil and dirt. It is most unsightly, and comes from lack of proper care. Washing the head daily is necessary, unless the crust has been allowed to form, in which case it may be necessary to consult the physician. At the first appearance of any brown spots, use olive oil freely, rubbing it carefully into the scalp, and the next day wash the head with warm water and soap.

Continue this until the scalp is clean, but do not try to comb the crust off with a fine-tooth comb or anything of the kind. A daily washing will be sufficient. On the other hand, if the crust is allowed to develop, it may become eczematous, and in this case the doctor must give advice for the treatment.

The mouth should be washed out every day with a soft piece of linen or absorbent cotton wound round the finger, and wet with boracic acid solution. Rub very gently all around the mouth; by so doing, and keeping it clean, the digestion is much better. This should be done as faithfully as though there were teeth to be washed. The nose should also be kept clean. Have

plenty of wooden toothpicks and absorbent cotton, and wind a small piece of cotton on the end of the toothpick, wet it, and clean the nose thoroughly. Neglect of this part of the toilet may lead to mouth-breathing, a condition to be carefully guarded against. A point to be noticed with a young baby, in order that he may be handled as little as possible, is that he can be rolled from side to side, and all unnecessary pressure on the naked body avoided, for the least rough handling, though unintentional, may do much harm.

Whenever the baby's toilet is to be made, the nurse should begin by giving her own hands a careful scrubbing. It is by no means a light thing to put a finger which is not immaculate into a child's mouth, hence the suggestion. Some physicians prefer a sponge bath in the morning for a baby, and a tub bath at night. There is no question but that a bath in the tub induces sleep, so that if the baby is not a specially quiet sleeper it is better to bathe him in this manner. In hot weather, it will do no harm to sponge him off several times a day; in fact it will help him endure

weather which might otherwise make him sick—for little babies feel the heat greatly. If there is not time for many baths, bathing the hands and wrists with cold water is very refreshing. This can be done repeatedly, and often will keep a child cool and quiet who would otherwise be fussing and fretful.

A plentiful supply of water (not ice water) to drink is also a great help.

There is another point of great importance to remember; that is, rubbing the baby every day. After the bath rub the hands down the spine, gently at first, but gradually using more pressure, until the back has a healthy red glow. Any lubricant can be used; alcohol, one part, olive oil, two parts, and salt enough to give a little additional friction. This is beneficial in several ways, and very soothing. It stirs up the circulation, quiets the nerves and strengthens the spine, and for delicate babies often works wonders. Some healthy babies with little provocation have prickly heat, which causes itching and much discomfort. Give a bran bath for this, and use no soap. A cupful of bran tied up in

a gauze bag and suspended in the water until it has a milky appearance will be found very soothing. Bicarbonate of soda (baking soda), two tablespoonfuls to a gallon of water, will allay itching of the skin. A starch bath, half a cup of raw starch added to the water, is soothing to an easily irritated skin, but in giving any kind of a bath to allay itching, the baby should never be rubbed dry, simply rolled up in a towel and gently patted till the moisture is absorbed.

One of the surest ways to keep a child from taking cold, aside from having him kept in a cool room, especially when he is asleep, is a cold bath in the morning, special care being taken to rub the back, chest, and throat until red. The child should stand in a tub containing just enough warm water to cover his feet. Then fill a large sponge with cold water and squeeze over his body two or three times, and rub him until he is aglow. This may be done when a child is three years old, and even as young as two years. For infants the temperature should be 65° to

70°, but for a child two or three years, it can be 50° to 55°.

Scratching or rubbing an irritated surface always makes matters worse. Because of this tendency, many comparatively small beginnings have developed into very troublesome skin lesions, unsightly in appearance and hard to remedy.

The skin of a baby is very sensitive, and needs wise and careful care. Absolute cleanliness is necessary, and that means a free use of water, and careful drying of the skin. The diapers should be changed as soon as they are wet, for the acidity of the urine will cause chafing. The opposing folds of skin should be separated and washed and powdered each time, especially with fat babies. It is an easy thing to bring about severe skin-lesions in a perfectly healthy, normal baby, by neglecting to wash him properly. On the other hand, the right care will as effectually prevent this state of affairs, and is decidedly worth trying. A sponge should never be used upon the body of a baby. It is unsanitary, and cannot by any possibility be made

clean except by boiling, and that process wrecks the sponge which, as some one has truly said, would be the very best thing that could happen to it. A clean piece of linen is the only suitable wash-cloth, as it can be renewed or washed easily. Have one cloth for the face and another for the body.

Before leaving this subject, there is a phase which will have to be mentioned because of the evils which may result from neglect of it. In babies of both sexes, great care should be given to the external genitals. For little girls, washing with a piece of linen, using boiled water and soap, is all that is necessary, and this, of course, should be done every day. If there is any discharge, boracic acid should be used, and washing in these cases only once a day will not be sufficient to insure the necessary cleanliness. With boys, the problem is quite different. The majority of boy babies are born with a tight foreskin, which cannot be pushed back until stretched. This, however, is a simple operation, and can easily be performed, though only the physician should do it. After this, the

foreskin must be stripped clear back every day, and the membrane washed very gently, then vaselined, after which the foreskin is to be drawn into place.

No matter how much emphasis is laid on the necessity for going through with this daily, or how urgently mothers are asked to be careful about it, the result is the same with few exceptions, and the boy is not washed. Parents very generally consider it either foolish or unnecessary, with the almost inevitable result that adhesions are allowed to form.

Too much importance cannot be made of this part of the daily toilet. It is essential for good health, good manners, and, above all, good morals. Neglect plays a large part in the formation of bad habits, arrested mental development, nervous disorders of a more or less grave nature, even to epilepsy. That physicians are also to blame in this matter is too true. Comparatively few lay any stress on the subject.

Occasionally one will try hard to impress patients with the gravity of the subject, to find later that his warnings have

been in vain. The reason often is, that in talking over the subject with her friends, the mother learns that some other prominent physician says nothing about it, and by comparing notes she finds that no one has heard anything to make her understand that it is really necessary. Then she stops, feeling sure that her own doctor made a fuss about something of no importance.

The son of a very prominent surgeon considered the advice given to his wife that the baby should be cared for in this matter every day perfectly absurd. He said that if this had been necessary he would have heard of it in his boyhood, for his father was an authority. The reason for this inertia on the part of physicians and parents generally is hard to explain, but the evils resulting from it are evident on all sides. In our schools the effects are very noticeable as it is a most common factor in mental apathy, stupidity, irresponsibility, etc. The explanation given so frequently for irregularities of conduct on the part of many children that "boys will be boys," and accepted so calmly by many,

shows a degree of short-sightedness little short of criminal.

In a family of six sons, the four older ones began to show marked nervous symptoms, and one had pronounced epilepsy. Tight foreskins with adhesions were found in all of them, so that circumcision was promptly advised. In two of the four cases the nervous shock produced a very trying after-effect from which one of the boys never quite recovered until well grown. When the fifth son was born, there was a different doctor in charge.

He explained to the mother how the child should be washed, and why this particular procedure was necessary, with the result that the fifth and sixth sons never had to be circumcised, but were always normal, and entirely free from the distressing nervousness which was characteristic of the elder boys. The mother said that the other physician had never mentioned to her the subject of bathing her boys. It is a fact that proper bathing almost always removes the necessity for circumcision, and it certainly seems remarkable that sensible parents can for one moment consider that

common cleanliness and decency are so unimportant, or that any operation can do away with the necessity for it.

Right here another word of advice: never allow a servant to perform this duty. So many little children, both boys and girls, are ruined for life by the evil teachings of servants that under no circumstances should the maid be permitted to do this for the children. If the awful stories and confessions given in a doctor's office could be made public, many wrecks, both mental and physical, could be traced directly to this one neglect of duty on the part of parents, and in very many cases there is absolutely no redress.

Surely the neglect of any duty toward a child which may either directly or indirectly produce such awful consequences is a crime against him.

RECAPITULATION

I. Baths are necessary from the first day of life to the very last.

II. They should be given at first on the nurse's lap, with the temperature of the water not above

100° F.; as soon as the cord falls off, or in two weeks anyway, the baby should be put in the tub, the temperature then at 98° F. At six months the temperature of the water should be at least 90° F.

III. The temperature of the room should be 70° F., and bathing before an open fire the best.

IV. Nurse should wear a double flannel apron, one end for the baby to lie on, and the other end to cover him, thus avoiding exposure, and only the best grade of soap should be used.

V. Boil the water used for bathing, and have rain water if possible.

VI. In drying the baby, patting is better than rubbing; dry carefully between fingers and toes, and all creases.

VII. Milk crust in normal baby is due to carelessness; cleanliness will do away with that unsightliness.

VIII. Wash mouth gently every day, use boracic acid solution. This is a great aid to the digestion.

IX. Keep the nose clean for other reasons besides æsthetic ones; neglect may lead to mouth-breathing.

X. Tub bath at night is a good antidote for restlessness.

XI. In hot weather, several sponge baths a day help a baby to endure it.

XII. The baby should be rubbed down the spine every day for a few minutes; any lubricant is good.

XIII. For an irritable skin, use no soap; use starch, bran, or bicarbonate of soda in the water.

XIV. Bad skin lesion may come from small beginnings; allay any irritation as soon as possible.

XV. Sponges are unsanitary; use linen instead.

XVI. The genitals of both sexes should always be kept clean; in boys the foreskin must be pushed back and the membrane washed gently every day. If this is done, as a rule circumcision is unnecessary, but cleanliness is always imperative. Neglect of this part of the daily toilet may be a predisposing factor in the greatest consequences.

XVIII. One of the preventives for colds is a cold bath in the morning. Stand child in tub with a little warm water and squeeze sponge with cold water two or three times over body; temperature, 55° or 60°.

CHAPTER VI

HABITS OF THE BABY

From the very start, and day after day, the baby should be trained to have his meals at a regular time. There may have to be some variation from this rule, perhaps, but a determination to have the meals served at the same hour each day, will not allow much irregularity. When the mother is ready, and the baby is only a few hours old, put him to the breast, and repeat this operation every four or five hours during the day until the third day, when the schedule time will have to be changed. From the first, do not let him have anything except water after eleven P. M. until the first meal of the day is taken at five or six o'clock. This, of course, applies only to the normal baby who weighs not less than 7 to 7 ½ pounds; undersized children have to be managed differently. After the milk diet is regularly installed, two hours is the

ordinary interval between the feedings during the day. If, however, the mother's milk is of good quality, the time can be changed to every two and one-half hours with great advantage to both mother and child. Indigestion from too frequent feedings is very common, but the rule to give the baby his milk every two hours is so universally accepted that this as a cause of the disturbance is frequently overlooked. If the child is well nourished and should wake up and grunt and fuss after the manner of babies, he can frequently be quieted by changing his diapers (which can be done without taking him up) and giving him a drink of water. It is a mistake to take a baby up and nurse him in the night. After this has been done once or twice, it has to be kept up, for habits of this kind are quickly formed, and like all habits, are hard to break. At first, the baby frequently has to be awakened in the day to have his milk on time. This does no harm, and soon he will learn to wake up himself. It is, however, a great advantage to keep him asleep at night, and if by gently changing his position this can be accomplished,

the mother and baby will gain by the scheme. A good rest at night makes much difference in the quality of the milk.

Normal babies are good sleepers. If a baby is not a quiet sleeper, there is something very wrong with him, and he is no longer "normal"; for babies, like little animals, sleep much, and peacefully. The first two months, a baby should sleep nearly twenty hours out of the twenty-four, but, of course, as he grows older, the hours of sleep in the daytime grow less. Much and quiet sleep is the very best preparation for a well-balanced nervous system, and there is no possibility of a child's getting too much. In the very beginning, he has to be taught to do most of his sleeping at night, and unless this stand is taken very decidedly by the person in charge, there is trouble in store for the entire family. Sleeping regularly and eating regularly have to be taught the new baby, who as a rule is very quick to learn these two things. If mothers knew how much easier it is for everybody that these regular, methodical habits should be established, and would be firm about carrying them out, much woe

would be spared every other member of the household, and especially the baby himself. It is perfectly amazing how quickly these little people learn to assert themselves; in a very few weeks the baby will have the entire family under his thumb, unless he has been made to understand that he must do certain things at stated times. Regular hours for feeding, and regular hours for sleeping are imperative for anything like methodical training.

It is much better that a little baby should be handled as little as possible, the bones are soft, and more or less easily injured. All he needs is to be kept clean, warm, and his position changed every little while. It is important to remember that the shape of a baby's head may be materially altered by allowing him to lie altogether on one side. See to it that his position is changed from time to time, because the bone of the head should have symmetrical pressure.

It is much better never to rock the baby to sleep; when he is ready for bed, put him in his crib, and let him alone. The crib should be warmed. A hot-water bag is an absolute essential in caring for a young

baby, for he must never be allowed to get chilled. By having the crib warmed, the child is much more apt to settle down to sleep, aside from lessening the danger of cold and colic. If a baby has never been fussed with in order to make him sleep he will not want it. The complaint is sometimes heard that the new-fangled fashions of caring for children tend to take away much of the pleasure of having a baby. The most important thing of all is to have a well-developed, normal child. After the first four or five months he can be held and petted more, but at first, the best results are attained by intelligent care, and this means, not much handling, not much notice taken of him, and no excitement, for the very delicate nervous system of a baby is so much more sensitive than people realize. Miss Wheeler in her admirable book, "The Baby," lays great stress on the necessity for moderation in the successful management of young children. From the start, accustom the child to sleep where there is no unusual stillness. They can sleep perfectly well, regardless of ordinary noises. It is the

sharp, unusual sounds which waken a child, but there is no necessity for walking on tiptoe or speaking in a whisper.

The so-called "nervous baby" is made so by the unwise treatment of the family. Babies, that is, most of them, are well and not nervous in the beginning. Of course, there is some difference in children in this respect, but the training is a far larger factor than heredity until long after baby days are well passed. Fathers and mothers from unwise pride in their offspring are frequently foolish in the extreme with them. Incidents are seen over and over again illustrating the truth of this assertion; young inexperienced parents who have no appreciation of the injury that is being inflicted upon the children by their indiscretion, playing with, and exciting the little brains quite beyond the danger line. One young father wishing to show off the cleverness of his five-months-old son, would throw him up in the air by his little legs, and stand him on his head and go through various acrobatic feats—at bedtime, generally—and both parents were amply repaid by the shouts

of laughter from the baby. A young mother complained that her daughter was never contented to be quiet, but always had to be amused all day long. And yet this same daughter was not a year old, and ought to have slept three or four hours every day. Nor are these blunders committed only by young parents. A tired, worn-out, nervous woman came to a physician for some remedy to make the baby sleep. On being questioned, the following facts were brought out. The baby had been shown off to admiring friends from birth; he had been awakened out of sound sleep night after night in order to amuse the father, and kept in such a state of excitement that finally there was no more quiet sleep for the child. Added to this, the diet from the first had been injurious in the extreme, until the poor baby's condition was deplorable. Nurses would not stay, the mother was hysterical, and the entire domestic arrangements were disturbed. It took much eloquence and firmness on the physician's part to bring anything like order out of this chaos. A trained nurse was put in charge, the father

and mother sent away, and the little patient left alone with the doctor and the nurse. It was a long time before the baby either ate or slept even fairly well, and it is perfectly safe to say that this child will never develop into a perfectly satisfactory physical condition, largely if not entirely due to the treatment he received from those who loved him best in the world. To facilitate good habits of sleeping be very sure that there are no pins that can possibly cause trouble, have all the clothes smooth with no wrinkles, and always have the crib so arranged that the baby's eyes are protected from the light. At first, a basket with a hood like a dog basket answers very well for a baby, and this can be carried around from place to place with little inconvenience, but never on any account cover the baby's head with a shawl or anything like that. There are people who still do this. Babies need air as much as grown people. After the basket is too small and a crib has to be used, have this arranged so that the eyes are well protected. A screen can be put around the crib, or if it is better to turn the head toward the window, put up

EVEN THE OLD-FASHIONED CRADLE HAD A SATISFACTORY HOOD, WHICH PROTECTED THE BABY FROM THE WIND AND TOO STRONG LIGHT.

two uprights, one on either side, and throw something over this thus forming a temporary hood. It is a mistake to have the room dark, for after the child has grown accustomed to a dark room, he cannot sleep where there is any light. The more sunlight a baby has the better for him, and it is an excellent plan to have a child take his nap every day with the sun shining on him. In the country particularly, the practice of having the baby take his nap outdoors in his carriage is a very good one. Of course, he must be protected from the wind, but let the sun shine right on his carriage. In the cities, window baskets often can be used, and the baby put into these. In many cases, to be sure, this is not feasible, but in the country it can generally be managed. Babies and flowers are alike in that both are beautiful, and both thrive better under the care of people who love them, and both need good air to do their best.

Until a baby is well along and can eat a mixed diet and exercise vigorously, he breathes better in the air that is not too cold. For this reason when the thermom-

eter is down to 30°, the child should be kept in the house, but the air can be kept fresh there. However, in this matter as in many others, no absolute rule can be laid down about the temperature. In clear, dry, cold weather it is often very beneficial to take the baby out during the warmer hours of the day, and yet the thermometer may register below 30° F. Damp, windy, dusty air is never good for a baby's lungs, so that on questionable days some intelligence will have to be exercised as to the wisest way to treat the particular baby in question. But one rule holds good for all children, they will not thrive unless the air is good, and this means that it should be changed frequently in the room in which the baby is kept. Air that has been breathed over and over again is no more suitable for the good of the child than the "same water used over and over again is suitable for bathing." The air of the nursery and sleeping-room must be changed often, and it is quite as important that the night air should be fresh as that of the day. For some unaccountable reason there are people who think that the air

at night is unwholesome, that windows of sleeping-rooms must be kept shut after sundown. There are few more disgusting odors than that which is found in rooms that have been occupied at night by adults with the windows shut. These individuals usually are the same, who have pronounced views about bathing freely, feeling that one bath or so a week will do for any ordinary mortal. It is certainly little short of inhuman to compel a baby to breathe such an atmosphere. When the windows are open, great care must be taken that baby is in no draught. This is another advantage of a screen. It can be so arranged that when the baby is in the crib he can be protected both from light and draught.

In the daytime, when the weather is unsuitable for taking the child out of doors the windows can be opened, and the air of the room changed. This should be done while the baby is out of it, but care that the baby has plenty of oxygen ought to be as pressing as that he is fed or bathed every day. In the summer, the most invigorating time is early in the morning; the air then is particularly fresh and sweet,

and acts as a tonic. It is a pity that most people lose this part of the day. The baby ought to have the benefit of it, though, particularly if the weather is very hot. No child should be taken out during the warmest hours of the day, unless he can be kept constantly in the shade. Avoid extremes of heat and cold; allowing a baby to perspire freely, or to become chilled may lead to dangerous consequences.

A good deal has been written about thumb-sucking, some physicians saying that it does no particular harm, while others denounce it as a bad habit, and one that should be broken up. Among the laity, there is a feeling that a child who sucks his thumb is apt to be a quiet baby and more easily managed, and so the habit is encouraged, and children are allowed to do this. There is no question about the fact that many children do this during baby days, and break the habit when older, and that no apparent harm results from it. Nevertheless, it is not wise to let a child do this, for while it is often apparently harmless, the bad results are sometimes very lasting. A wide-awake dentist was

looking with great pride at his firstborn not more than an hour old, when the baby put his thumb into his mouth and began to suck it most vigorously. The father said very quietly, "No, no, my son, you must not do that," and gently took the thumb out. Turning to the doctor he said, "I see too many ugly jaws to let this little fellow run any risks."

The majority of people think prominent teeth a defect; children who have them are much marred in looks; thumb-sucking tends to make the jaw narrow, and to push the teeth forward. Surely the risk is hardly worth while. If a child sucks his thumb because he has indigestion or because he is nervous, consult the physician; but do not let the habit go on because some friend's children did it and no harm came of it. Habits such as pulling the ear, twisting the hair, or sucking the fingers are not in any way necessary, and the effects that are brought about from just these propensities are frequently not so evident to the parents as to others. The folly of giving babies pacifiers—rubber nipples—to suck can not be too strongly

denounced. Dr. Kerley in his book "Short Talks to Young Mothers" illustrates this particular enormity so well, that the following quotation from his book is given.

The "pacifier" habit, the habit of sucking a rubber nipple, is an inexcusable piece of folly for which the mother or nurse is directly responsible. The habit when formed is most difficult to give up. The use of the "pacifier," thumb-sucking, finger-sucking, etc. make thick, baggy lips, on account of the exercise to which the parts are subjected. They cause an outward bulging of the teeth and a narrowing of the jaws which are not conducive to personal attractiveness. Nature has not been so lavish of her gifts to the majority of mankind that they can afford to trifle with her handiwork. Furthermore the pacifier is often a menace to health. If there are two or three young children in the family, it is frequently passed around without other means of cleansing than being drawn a couple of times across the nurse's sleeve! This novel method of disinfecting the "pacifier" may be seen in actual use in the parks any pleasant day, and I have often seen the mother or nurse moisten the "pacifier" with her own lips before giving it to the child. I have seen young chil-

dren fight for the "pacifier," one taking it from the mouth of another! It may readily be conceived what a boundless source of harm this little instrument may be, when every sort of disease known to childhood may be tranferred by it. Thus it may act as a means of transmitting tuberculosis, syphilis, diphtheria, and many of the ailments of minor importance. Adenoids are often the result of thumb-sucking or the use of the "pacifier." The pressure exerted in sucking forces the uvula against the posterior pharyngeal wall; this irritates and stimulates the glands of the part, which in time enlarges and adenoids develop. To break the child of the "pacifier" habit, burn the "pacifier" and do not buy another as is sometimes done.

The amount of trouble which enlarged tonsils or adenoids can cause is simply endless, and nothing should be done, nor any risks run which can possibly foster their growth. It is a small matter not to allow a child to form any habit conducive to their development, but a large proposition to deal satisfactorily with them after they have developed. For this reason, a child should never be allowed to sleep with his mouth open. Tie the mouth up at night and watch the child. If the mouth is open,

shut it up; by so doing a very unpleasant failing can frequently be remedied.

Mouth-breathing is generally caused by the presence of an abnormal amount of tissue in the throat or nose, and it also predisposes to excess of this tissue; it acts and reacts, but by carefully guarding a child against forming the habit of keeping the mouth open, the growth may never be large enough to cause trouble. On the other hand, it is a well-known medical fact that the presence of adenoids and enlarged tonsils makes a child abnormal. He is peculiarly liable to tonsilitis, diphtheria, and deafness; in fact, to almost anything, to say nothing of the unpleasant voice, thick utterance, and generally stupid expression of countenance. It seems as though every one must feel that any habit which can add in the least to the possibility of this lesion, is hardly worth while.

Many wish to know when the baby will be old enough to learn to use his chair, and not soil so many diapers. Some years ago the experiment of having small babies trained to use the chair was tried, and pronounced a failure. The spine and all

the bones are very soft. No small baby should ever sit up; when he is old enough to do this, he will try it himself, and in a very short time accomplish it, but forcing the baby to do it is a dangerous plan, and may result in a life-long curvature. If the child is held up by any one, the pressure on the ribs is also injurious, and may cause the bones to bend. There is one more reason against the plan of having the child use his chair; it may cause prolapsus of the rectum, that is, protrusion of the large bowel, which makes trouble for him when he has a defecation, and ultimately necessitates a surgical operation to remedy. Any vigilant mother can so train a baby as soon as he sits up that the number of soiled diapers can be materially lessened. If the baby's training is what it should be, he develops into a machine, and part of the work of that machine is to have the bowels move regularly each day. This habit is by no means the least of the advantages of methodical training. Babies are born without habits. Those are contracted later; whether the habit is good or bad depends upon the attendant. The baby cries

in the night, and is taken up and nursed. This operation is repeated again the next night, and by the third time, this is a pretty well fixed habit, and he will cry much harder if he is not given what he wants. It is the same about going to bed. If he has been rocked or sung to for a night or two, he generally is unwilling to relinquish this pleasure without a considerable struggle.

If by making enough of a fuss he can have his milk any time, there is no question but that the fuss will be made, and much woe will follow in this wake.

A very wise mother was asked by a much younger woman who was planning for the first baby, how soon she ought to begin to discipline the prospective infant. "The very first day," was the reply, "and keep it up as long as you live." The disciplining of children is a much simpler matter if managed in this way, and the battles fewer and more decisive if begun early. The scheme of letting children do as they please, with the belief that after a while, as they grow older, they will develop into well-disciplined, obedient children is al-

ways a failure. Such a plan is hard for the father and mother, trying to neighbors and friends, but worst of all for the child himself, and none has a right so to handicap a child. The child who amounts to much in this world is the one who has been made to understand from the very beginning that there are certain things which must be done, and others which, if persisted in, bring dire consequences.

RECAPITULATION

I. Every baby should be taught to eat at regular times. It is better for the mother and baby to have long hours of sleep at night, therefore give nothing but a drink of water between ten or eleven o'clock and the first meal in the morning.

II. Intervals of 2½ hours after the first week are often better than 2 hours, and aid digestion.

III. Awaken the baby in the daytime, if necessary, to nurse on time.

IV. Do not play with, rock to sleep, or jump a small baby about. The quieter he is kept, the better for him.

V. Lay him down, first on one side, then on the other; do not have all the pressure on one side of the head.

VI. Accustom him to sleep in a light bedroom and not to mind ordinary noises.

VII. The baby should have fresh air every day, his naps should be out-of-doors.

VIII. Do not let the baby suck his thumb; it may lead to misshapen jaw, prominent teeth, adenoids, and other evils.

IX. Never allow a child to have a "pacifier."

X. Avoid letting him form any habit which may be detrimental, for bad habits are easily acquired, and hard to break.

CHAPTER VII

THE NURSERY AND THE NURSE

In choosing a room for a nursery, the room where the baby is to spend most of his time when in the house, one should be selected that has much sunlight; preferably with a southern and western exposure. The ideal conditions for ventilation are when there are two windows, one facing the south, and one the west, and an open fireplace. In the city, the higher up the nursery, the better the air and in the country, it should not be on the first floor, for this is apt to be damp. A large room is better than a small one, especially if the baby sleeps in it.

The furnishings should be of the simplest kind, no draperies or upholstered furniture, only plain things than can be washed. A hard floor is better far than carpet or matting, and a few rugs, light in weight so that they can be easily cleaned are advis-

able. Painted walls are also better than any other, for they can be wiped with a damp cloth and kept clean.

The bed for the baby should be simple. Brass or rattan beds are unsuitable, because impossible to keep sanitary; a plain white enamel "Safety bed" is fairly satisfactory. Have a woven-wire mattress—neither hair, cotton, nor excelsior is proper for babies to sleep on. The woven-wire one covered with a heavy blanket is just the thing, as the blanket can be shaken and aired every day, and the mattress dusted. Over the blanket put some sort of a covering, like "stork cloth," or a rubber sheet, that protects from the cold and at the same time keeps the blanket dry. Put over the rubber cloth a white sheet and then a large pad. A bed made in this way can be kept perfectly clean, and is easily aired. Have the covering for the baby as light in weight as possible, and at the same time warm. One or two woolen blankets, and a woolen comforter should be sufficient, and not heavy. The baby must be kept warm, without visibly perspiring, for which reason a feather pillow is not good

for him, but a small hair one, an inch high, much better.

If the nurse sleeps in the room with the child, it is better that she should have only her bed there; her belongings, consisting of clothes, etc., should be in another room. The fewer things there are in the room where the child is, the better it is, and the easier it is to keep in order. Running water, wash-basins, plumbing or any apparatus for cooking should not be allowed in the nursery. All this should be in another room. Absolutely nothing should be in this room which can in any way taint the air in the slightest degree. This room should be brushed and dusted with a damp cloth every day, and aired carefully at least twice a day. No nursery should be without a thermometer, and the mother and nurse should keep close watch, and not let the room become overheated, or too cool.

At first, for a young baby, the temperature should be kept at 70°—but as soon as the child can kick and move his arms, 68° F. is quite warm enough. When the thermometer goes over 70° F. the child in liable to catch cold. Children are much

better kept in a somewhat cool room rather than too warm. If more heat is needed than comes from the furnace, of course an open fire is always the best; if this is out of the question, a Franklin stove is much better than an oil or gas stove. These send out poisonous gases and are always an element of danger. The room should be cooler at night. Until the baby is two or three months old, the temperature should be about 65° F., after three months old it may be as low as 55° F., and after the baby is one year old it may be 50° F., or even 45° F. Unless the temperature is below freezing, the window can be opened at night after the baby is three months old, and it is much better to begin in baby days and train him to this estimable habit of sleeping with an abundance of outside air in the room.

The process of airing the room where the baby is may be begun—even in cold weather—when he is a month old. At first, the windows should be opened only for ten minutes, but gradually the time may be extended to 4 or 5 hours, and this can be done in almost any weather.

The child should be dressed with bonnet and coat on, as though he were going out, then placed in a crib or carriage a few feet from the window. Close the doors to avoid draughts, and then there is no danger of the baby's taking cold. In summer, he may be taken out when a week old, but in the fall and spring, it is better to wait for three or four weeks. As it was said before, it is much better for every baby to take his naps in the open air, but place him so that the wind does not blow in his face, and never let the sun shine in his eyes, whether awake or asleep. The baby needs oxygen to renew and purify the blood, just as an adult does; consequently it is quite as essential as food or sleep. The mother should supervise the temperature of the nursery and the amount of fresh air the baby has. It is not wise to trust this to any one, no matter how responsible she may be, and wisdom in this matter will often make just the difference between a healthy and a delicate child. The nursery is the baby's own particular sanctum, and all his things are kept there. Most babies have enough belongings to re-

quire considerable space. In order to simplify the case, there should be a place for everything, and everything in its place. In the bureau have one drawer for skirts and dresses, another for stockings, shirts, and so on. Have some diapers folded neatly at the foot of the bed, and keep a hot-water bag under them in cold weather. If one does not care to see them, they can be covered over with something, but it is convenient to have them near, especially at night, and they should be kept warmed to be ready for use. In the night, the diapers can be changed under the bedclothes after a little practice, and frequently the baby will quiet down after this, and never notice anything excepting a feeling of comfort after being wet and uncomfortable, and with not the least exposure to cold. When the diapers are changed, never put them on the floor. Even though they are only left there for a few minutes, the odor is very tenacious and penetrating, and after a while is noticeable even though they are not in the room. Have a receptacle to put them in and carry them out as quickly as possible. A granite basin is very good

or even a piece of paper, in order that they may not come in contact with anything in the room. The odor of soiled diapers is very trying, and detracts seriously from the pleasure of being in the room. There should be no odor in a nursery, only fresh air and perhaps a faint suggestion of sweetness, such as lavender or orris. The woman who had all her babies' clothes put away in moth balls was practical, perhaps, but not exactly æsthetic. Pronounced odors of any kind are not agreeable.

A most indispensable article for the furnishing of the nursery is a screen, and the simple ones are the best. A small clothes-horse with brass rods or tapes stretched across the top and bottom to hold the curtains makes a most useful one, and is very easily kept clean. Of course, as the baby must never be in a draught, the screen comes constantly into play.

Because fresh air is so essential, the room should be thoroughly aired twice a day. Choose the hour when the baby is out of the room, and open the windows wide; if it is very cold, storming, or otherwise unsuitable for the baby to be out of

doors, this is all the air he will get, so it should be faithfully attended to these days. Very early in his career the baby manages to kick and wiggle himself from under the bedclothes, a scheme highly conducive to colds and croup. If the bedclothes are properly adjusted, he can kick and squirm to his heart's content, and yet keep covered. There are various contrivances for this purpose; one is to pin the blankets with large safety pins which are designed for this purpose; another, to make the nightdress with a drawing-string at the bottom which can be gathered up and tied after it is put on. Another very effectual device is to put the infant into a flannel bag made from a blanket, and tie the strings well up under the arms. The bag should be large enough to allow much freedom as children often will not sleep with this on unless they can move their legs. By putting on an extra sacque, the arms and chest may be protected also. Something should always be done, so that the child will not take cold. Frequently the kicking at night comes from being too warm; ascertain exactly the cause if pos-

sible, and then apply the necessary remedy.

It means a great deal of work to care for a baby, and keeps one person pretty constantly in attendance. If the mother can have a nurse, it is better that she should be relieved of so continual a strain. No one woman can do everything; if she keeps her house well, and is a suitable companion for her husband, and wishes to keep abreast of the times even a little bit, this will necessarily occupy some hours of the day, and so some one must help with the baby.

The selection of the proper person is a problem of much more moment than many people dream. Much of the child's life is spent with his nurse. If she is the right person for the position, well and good, and the mother who has such a treasure may well be grateful. On the other hand, the mischief the unsuitable nurse is capable of doing is unending. No wise woman ever relinquishes the entire charge of her child to any one—no matter how well adapted she is for the position; but she always has a careful supervision and oversight, and keeps herself well informed about every-

thing even to the smallest detail. In a well-regulated home, adequate provision should be made for the nurse. She should have a room of her own, where she can keep her effects, bathe and dress, and be by herself when off duty. She may be obliged to share the nursery at night with the child, but it is all nervous work, and a nurse should have regular hours off, when she can be free for a time. It is certainly a high order of service, and deserves good pay. As a rule, nurses should be above the other servants in discretion and intelligence. Physicians who have seen many children appreciate this fact, and urge more and more the advisability of having trained women for this work. As soon as the trained nurse leaves and the other nurse is installed, a tremendous factor for good or evil has entered into the child's life. If there is one calling above another where it seems as though all the cardinal virtues were needed in one individual it is in the child's nurse. This particular combination is rare. There are some things, though, which are so essential that without them the person is entirely

unfit for the position. It is, of course, imperative that the nurse should be cleanly about her person; she should bathe a great deal, wear clean underclothes and dresses, and have no disagreeable odor about her. The teeth should be in good condition, and brushed regularly. When looking after the baby, she should always wear washdresses, and never on any account handle the child before changing the dress which she has worn when in any of her friends' houses. Quiet and polite manners are a great advantage, and will make a great difference as soon as the baby is old enough. The nurse who always says "Thank you," and "Please" to the child, has done much toward making him do the same.

Forgetfulness in matters of this kind makes very much difference in his charm, and really nothing can atone for rude or impertinent manners. It is not at all essential that the nurse be pretty; a child always loves the person who loves and cares for him, and is apt to think her beautiful; but she should be clean and tidy about herself and in appearance. An illiterate,

rather uncouth Irish woman was engaged to care for a very small baby, to whom she became devotedly attached. Nature had not been very generous in the matter of external charms, but the defect was made good by a very sweet, unselfish nature and a good, honest heart. After the baby grew large enough to talk, he would throw his arms around her neck, and tell her in baby language how beautiful she was. The delight of that nurse was pathetic. She repaid his devotion by the most jealous care until long after he had grown up.

It seems hardly necessary to say that a nurse should be free from tuberculosis or any disease which the child could possibly contract, and temperate in her habits. The faintest suggestion of beer or alcohol about a woman renders her entirely unfit to care for a child. Many books lay stress on the wisdom of having a young woman between twenty-five and thirty-five for this position, and yet youth is by no means always an advantage. Unless a person is too old to be sprightly and not able to exercise vigorously, there are some very great advantages in having an older and

more experienced person. Common sense and a cool head are more apt to be found with years and experience, and surely nowhere are they more needed than in caring for children. A woman blessed with this kind of sense knows intuitively what to do when the emergency arises, and there are always plenty of opportunities to show her skill.

Many times accidents are averted by the timely action of the nurse, and story after story is told of the faithful and untiring devotion of this class of women.

That dreadful fire in New York City, which destroyed one of the largest and best known hotels in the country, is quite within the memory of most people. A large number of little children assembled there for a dancing lesson were saved by the presence of mind of one of the nurses, whose charges were among this number. She discovered the fire and gave warning to one of the hotel officials, and then warned the dancing teacher so quietly that not one of the children realized that anything unusual was going on. Taking the younger of her children in her arms, she and the

teachers led all the others through the most intricate and winding corridors until they were safe from danger. This fire occurred in broad daylight, and yet many people were burned to death. But for the presence of mind of this nurse many innocent children would have been added to the list. But all nurses are not faithful to their trusts, and resort to many schemes and devices to evade their duty.

A very young baby died suddenly from an unknown cause. Later it developed that paregoric (a small dose only) had been given by the nurse, to quiet the child's crying, and enable her to sleep. The fact that the dose was small and given with no intention of killing the child could not appeal to the parents as an adequate excuse.

Soothing syrups are as a rule villainous compounds and are responsible for much mischief. In fact, all medicines given to a child to quiet him, except by the doctor's orders, are pernicious to a degree; and the nurse who is caught administering anything of the kind should be discharged instantly. She is never to be trusted, but

is capable of doing harm which never can be undone.

One walk through the Park any pleasant day when babies with their nurses are out in great numbers, will convince any thoughtful person that very little discretion is displayed in the selection of the women who care for the babies in the city, and the difference between the city and country is only one of numbers. The absolute indifference which is displayed by these nurses toward the babies committed to their charge is something appalling. That most fathers and mothers love their children is beyond question, but that many of them have no respect or reverence for them is also beyond question. They entrust the care of them to servants who they know are morally unfit to have anything to do with an innocent child. These in a most flippant manner excuse indecencies of speech and manner by saying, "Oh, when he is older he will know better." No one who does not love and respect children and has not a clean mind together with right principles should ever be entrusted with the most precious of all mortal things,

a baby. Every one who has had much to do with children of the rich as well as the poor is often shocked and disgusted by the actions and words of some very small boys and girls, those who have been cared for by these very unfit attendants. A very young boy who could only use baby talk was having an altercation with his nurse. The Billingsgate, interlarded with oaths which would have done credit to any longshoreman, that poured from his mouth was perfectly amazing. And the nurse answered him in the same choice English. That woman had been a retainer in the family for some time, and it is probably not uncharitable to think that she was responsible at least for part of the knowledge that child had acquired.

It is a well-known law in psychology that imitation is the first and strongest impulse in a child's nature. This was a child in a cultivated family, and the mother, at least, would never have used such words, and in all probability tried to check the child. This incident is by no means unusual. Teachers and physicians are constantly being confronted by just such prob-

lems, and if it were confined to this phase alone—which is bad enough—the physical effects are not so utterly ominous as from other evils taught in many cases by nurses also. The habit of masturbation, that is, the undue handling of and irritating the genitals, so common among children, and so injurious to their health and morals, is always taught by some one. There are exceptions to this rule where there is a physical cause, but the statement holds true so often that it is allowed to stand. It is true that sometimes very small babies acquire the habit, but with them it is entirely reflex and can always be stopped with a little patience and care.

Babies should be closely watched and properly bathed, and then if the least tendency is shown towards this perversion, it should be corrected at once. When, however, the habit is taken up by older children, because it has been taught them, the question is a most serious one, and deserves the strictest attention from every thoughtful parent. That nurses are guilty of this sin, because it keeps the children quiet, and allows the attendant more free-

dom is known to be a fact by every physician. This terrible evil is a predisposing agent in all stages of retarded mental and physical development, epilepsy, idiocy, feeble-mindedness, and insanity.

It is so prevalent in our schools, both public and private, as to cause much anxiety. Surely no sane parent would for one minute keep a servant who was known to be guilty of such a crime. That mothers frequently know very little about this is no excuse. The dose of paregoric, mentioned before, was never intended to kill the child! Nitro-glycerine explodes quite as effectively for an ignorant person, under the right conditions, as for the intelligent. It makes no real difference in the results that parents cannot understand how such fearful results are attained from such causes. Until fathers and mothers rise to the occasion, and inform themselves on this important subject, little can be done for the children.

A conscientious mother discovered to her horror that her little daughter had in some mysterious way acquired this dreadful habit. The child's nurse, an old family

retainer, having been the mother's nurse previously, had taught this to the little girl and made her promise *not to tell;* therefore it was only after much patience and careful inquiry that the mother was able to find out about it. It was a matter of months before the doctor and mother could break up the habit, and even then it had made serious inroads upon the nervous system.

A young boy from a well-known intellectual family confessed to his physician that his nurse had taught him this vicious habit when he was a small child and that he had never been able to break away from it. His health was seriously undermined by his habits, and his will was so weakened that the doctor could do little for him, and shortly after he died from heart failure following pneumonia. No human being has any right to jeopardize the mental, moral, and physical well-being of a child; and it would be hard to imagine anything more terrible than the anguish of fathers and mothers who have in their family such wrecks as this habit may lead to, and at the same time know that their ignorance or indifference to their children during

baby days and childhood is largely responsible.

A beautiful mother taught all her children when mere babies to sleep with something in the hands, a doll, or a small pillow or some object like this which could be held up close to the face. The idea was that if the child's hands were occupied the danger of acquiring bad habits in bed would be greatly lessened. The results in this case were all that could be desired. The wisdom of the procedure can hardly be over-estimated. The old adage that Satan finds some mischief still for idle hands to do is painfully illustrated in the case of so many children, and the most effectual remedy is substitution.

RECAPITULATION

I. Have a large, sunny room above the first floor for nursery, with simple furnishings.

II. The baby's bed should be of the simplest kind, so that it can be dusted and aired daily. Have a low hair pillow, and bed clothes light in weight.

III. The temperature during the day should not be above 70°. An open fire is best of all.

IV. Until baby is two or three months old, at night the temperature should be about 65°, after three months it may be 55°, and after a year it may be 45°.

V. The room should be aired thoroughly twice a day. It should be clean, well dusted, and orderly.

VI. Never put soiled or wet diapers on the floor. Have some kind of receptacle to put them in, and remove from the room as soon as possible.

VII. A screen is indispensable, the simpler the better.

VIII. Have the baby's night-clothes arranged so that he will never be uncovered.

IX. If possible, the mother should have a nurse to help care for the baby, but no matter how responsible she may be, the mother should carefully supervise everything.

X. The nurse should be healthy, clean, and temperate.

XI. The law of imitation is old; see that the example set the child is what it should be.

CHAPTER VIII

GROWTH AND DEVELOPMENT

There is no other way of telling so accurately how the baby is thriving as the weight, and during the first year a record is almost indispensable. The baby should be weighed every week, for the first six months, and after that at least once in two weeks. During the first week many babies lose instead of gain, but by putting them to the breast as soon as the mother is sufficiently rested and keeping up the practice the loss is much less, and frequently there is a gain even that week. For the first six months the average baby gains from four to eight ounces a week, and the next six months the average is from two to four ounces. Bottle-fed babies as a rule do not gain much the first month, for in order to prepare the child's stomach to digest cow's milk, a very weak preparation has to be given. Hence the baby does

A VERY SATISFACTORY METHOD OF WEIGHING THE BABY IS TO PLACE IT IN A BASKET WHICH RESTS SECURELY ON THE SCALES.

not have all the nourishment he is capable of assimilating, and loses for the first few weeks. Later, however, the gain may be more continuous for he does not have to be weaned. The average baby weighs about 7 to 7 ½ pounds at birth. He should double that in six months, and treble it at twelve months.

Of course, children vary in this, and during hot weather, or after the teeth begin to appear there may be an actual loss instead of gain.

It was said that one of the tests that show that the baby is thriving is by the increase of weight, but there are exceptions to this. If a baby is fed on proprietary foods he is very apt to gain rapidly, but there will be other symptoms which show he is not just right. Babies fed exclusively on these preparations almost invariably show signs of malnutrition.

The normal baby should hold up his head when he is supported, by the third or fourth month, and at seven or eight months should sit up erect. The soft spot closes about the fifteenth month, and it should not be open at two years. He

should begin to talk at about one year, and walk by the fifteenth or sixteenth month. No child should be urged to stand or be put upon his feet until he declares himself ready. There is much variation in all these matters—prolonged illnesses or grave digestive disturbances may make a great difference. Rickets is a common cause for backwardness in sitting erect, slowness about walking, or cutting the teeth.

The number of teeth in the first set is twenty. Usually the first to appear are the two lower central incisors, next the four upper central incisors. Next, two more lower ones, and the four front double teeth. The "eye" and "stomach" teeth then appear, and finally the last four double ones. These complete the set. The first ones may come any time after the fifth month, the eye and stomach teeth about the eighteenth months, and by the time the baby is two and one-half years old, he generally has the entire set. Heredity plays an important part in dentition; family peculiarities are very apt to repeat

themselves, so that this rule is subject to much variation.

It is a great mistake to call all the illnesses of the baby days "teething." As a matter of fact there should be but little disturbance from the teeth. The baby drools more or less, he may be somewhat fretful, and perhaps the temperature is slightly elevated, but these symptoms should only last for a few days. If the gums are swollen, the baby may refuse his food for a while, and there are often signs of indigestion in the stools, but if the baby is sick, and the signs are evident for more than three or four days, there are other factors than teeth cutting through the gums responsible.

RECAPITULATION

I. Baby should be weighed every week for the first six months, and at least once in two weeks for the second six months.

II. The first loss will be far less if baby is put to the breast regularly for the first three days.

III. For the first six months, the average

weekly gain is from four to eight ounces, and for the second six months, from two to four ounces.

IV. Bottle-fed babies are apt to gain but little the first month, but later the gain may be steady because of no loss by weaning.

V. Average weight at birth is seven or seven and a half pounds, in six months it should be doubled, and in a year, trebled.

VI. Continuous diet of proprietary food almost invariably produces malnutrition, though often a gain in weight.

VII. The baby should hold up his head at third or fourth month, and sit up alone at seventh or eighth month. The soft spot should close by fourteenth or fifteenth month, and should never be open at two years.

VIII. He should talk at about one year, and walk at fifteenth or sixteenth month.

IX. First teeth appear any time after the fifth month, and the entire set of twenty should be through at two and one-half years.

X. Cutting the teeth may make trouble for a few days, but a prolonged illness has other causes.

CHAPTER IX

THE SICK BABY

As long as the baby is well it is a comparatively easy matter to take care of him, but the sick baby is a very different proposition; then, many perplexing problems confront the mother. She, herself, to be a successful nurse, must have a cool head and a quiet manner. Children are most susceptible to the kind of temperaments which are around them, and excitement of any kind may be the undoing of a sick child.

The mother must be firm, and yet appreciate when it is wiser to humor the whims and fancies of the little one. Because the child is incapable of correctly telling his symptoms, the mother needs keen eyes and an acute sense rightly to interpret the real trouble.

If possible, it is better in an illness of any severity to have a trained nurse.

For one thing, the mother gets too tired and nervous with anxiety and various duties to do the best for the patient; secondly, a nurse frequently obtains better results by her kindly firmness, compelling the obedience which many a baby has not been taught to yield to his mother, so that when the crucial test comes, he refuses to take the disagreeable dose which is so essential, or, if he finally gives in, it is only after the poor body is too exhausted to fight any longer.

There is no time when the result of wise training shows to such advantage as with the sick baby. The successful issue of many a grave operation, or the happy result of some severe and painful illness is due largely to this one thing, that the child had a wise mother, and had been taught from the beginning to mind. Every doctor knows what it is to be told, "the baby would not take the medicine"; with the result occasionally that the call has been too close.

The writer recalls distinctly the distressing experience in a neighbor's family when the only child died from an attack of diph-

theria which was by no means necessarily hopeless. The child, at least six years old, quite old enough to have learned obedience, absolutely refused to swallow his medicine, or to permit the local treatment for his relief. His parents had no control over him, and the doctor was obliged to stand by and see his patient die needlessly, because he had not learned to obey.

If a child proves obstinate, it is better not to argue the question, but take him up and wrap a shawl about the body, pinning the arms down to prevent interference, hold the nose carefully, and, when he opens his mouth to breathe, insert the spoon as far as possible, empty it gently, and withdraw it slowly.

This is not cruel, but the best way to get around a trying problem. Children will frequently give right up and take the medicine quietly after one trial and it is far better than exhaustive arguments. Tact, gentleness, and firmness are sorely needed in the case of sick children.

Some of the medicines which are much used for children are far from pleasant, but after all the nauseous dose can be ren-

dered quite palatable by a little thoughtfulness. Castor oil neither smells nor tastes well, but given between layers of orange juice it goes down much better. A piece of ice put into the mouth first, and then the medicine, will often make a bad dose go down without much fussing. Small pieces of sweet chocolate are often beneficial, used as a reward for taking something unpleasant. This is a perfectly harmless piece of bribery and quite excusable. Cod-liver oil is taken by many children without objection; they even learn to like it. It should be given always on a full stomach. All oily medicines should be kept in a cool place, otherwise they are apt to become rancid. In giving any oil, always dip the spoon into water first, and then wash it immediately afterward, otherwise it retains the taste of the medicine, and will give offense to other innocent victims. Teaspoonfuls vary greatly as to size; in giving medicine it is better to use a four-ounce graduate marked with drams and ounces. These are inexpensive and accurate and can be obtained at any druggist's. In giving medicine in drop doses,

use the glass dropper which is also easily obtained at any drug store, and be careful to follow directions exactly. Medicines given in drop doses are always strong, so that care is needed to follow directions to the letter.

Always have plenty of fresh air in the sick child's room, and have nothing around that could possibly be offensive. All the rules for cleanliness given in the chapter on the nursery should be most rigidly enforced for the sick child.

That no grouping or arrangement of symptoms, or any definite line of treatment, can be given which will enable the laity to diagnose and treat successfully the various diseases of children is obvious.

The writer is convinced that the so-called "Doctor's Book" used in many families is a distinct source of harm. The process of trying to match the symptoms given in the book with the symptoms presented by some particular patient is rarely entirely satisfactory. Meanwhile, many valuable hours may be lost before a physician is called, with only too often an irreparable injury to the patient. As a rule,

the mother's eyes and intuitions are keen to see when anything is wrong with her baby. Awful catastrophes and long and tedious illness may be and often have been averted by promptly sending for the physician when it is noticed that the baby is sick. Consequently, it is earnestly urged upon parents to do this and be guided by the doctor's advice instead of following the advice of friends, or trying to treat the child with no idea as to the cause or result of the illness. There are times, though, when what is needed is prompt, intelligent action, and the remedies which are necessary must be applied at once. Often too, for various reasons, it is impossible to consult a physician on the spot, and perhaps all that is needed is a judicious dose of castor oil, or a change in diet.

The following suggestions are given hoping to show mothers how to act in emergencies and to help tide over until proper advice can be obtained.

Babies fed upon breast-milk entirely, are rarely sick—that is, if the mothers exercise proper caution. If they do have diar-

rhea or colic it is generally from being fed too often, colds, or from some article of food taken by the mother which disagrees with the baby. One frequent cause is cold. This can generally be averted by carefully noticing that the child's hands and feet are warm, and that he is not unduly exposed. On the mother's part, it is frequently necessary to renounce favorite articles of food, because when indulged in they give the baby pain. Again, when the mother is over-tired or overheated the milk will disagree with the baby. These things are quite easily remedied.

A beautiful eight-months-old baby which was entirely breast-fed, had a sudden hard attack of diarrhea, much to the consternation of her parents. The child seemed quite normal one day, and the next day had much pain and very green stools. On questioning the mother, two facts were brought to light, an inordinate indulgence in rhubarb pie, and a violent outburst of temper. The combination was quite too much for the baby. The mother's surprise was very evident at the questions, and increased when the only treatment pre-

scribed for the baby was a large carthartic given to the mother, and some advice about controlling her temper. The lesson, though, was a wholesome one.

It is impossible in a book of this kind to discuss all the possible reasons for indigestion in the baby, but if by carefully watching the cause (for there is always one) nothing can be found, consult the physician, but do not let the baby continue to have trouble.

Greater care and watchfulness are necessary for the bottle-fed than for the breast-fed baby. With the latter, nature regulates the milk to suit the child's growing needs, but when he has to have artificial feeding, it requires sense and good judgment to manage it rightly. A formula suitable at one time will have to be changed as the baby grows older. The quality of the milk may not always be the same, and for one reason or another modifications from time to time are necessary.

In a previous chapter were given the signs of a healthy, normal child: A gradual though not necessarily uniform increase in weight; much, and quiet, sleep with nat-

ural, and not labored, breathing; no vomiting, and daily movements of normal consistency from the bowels.

The baby who fulfills these requirements need give his parents no anxiety; when, however the child deviates from these the matter should be looked into, and the cause found.

If the baby is not gaining weight without special signs of indigestion, increase the proportions of all ingredients. If he has habitual colic, put in less of the full milk. Occasionally a baby is seen who frequently has more or less green stools, but apparently little or no pain, and sometimes an ounce of barley water before each feeding will be necessary besides reducing the full milk.

To prepare barley water, take one heaping tablespoonful of barley flour to one pint of water. Boil for half an hour, strain and add water to make one pint. If wanted stronger, use twice that amount of barley to the pint of water. If the child vomits right after eating, reduce the cream, and sometimes it is necessary to reduce the full milk also. If he is constipated, in-

crease both cream and full milk, and give plenty of clear, cold drinking water besides.

It often happens that a child is suddenly seized with diarrhea and vomiting. In that case, while waiting for the physician *stop all food,* and give castor oil. Water (boiled) given in small quantities is often taken with great eagerness, but if it induces vomiting, stop this also. It is of great benefit to allow the stomach absolute rest. When the feeding is commenced again, give small quantities of a weaker preparation, and increase to the normal strength gradually.

The trouble is caused by infection. Something is wrong, and generally it is with the milk supply. It is necessary that the cows be kept clean, the udders washed, and the hands and clothes of the milker immaculate at each milking. The milk should be carefully strained, put into a covered receptacle, and kept free from contamination. Neglect of any or all of these requirements is all that is necessary to bring about these bad cases of bowel trouble. If the milk used comes from sani-

tary dairy farms, these precautions are always taken, but frequently much carelessness is displayed in private establishments, and sanitary measures are entirely disregarded.

After one or two attacks of this kind, the mother is sorely tempted to try sterilized or Pasteurized milk, or some of the much-vaunted baby-foods, when the only safe remedy lies in having a good milk supply, and giving that without the aid of anything but the proper modification.

CHAPTER X

THE SICK BABY, CONTINUED

SORE MOUTH.

A frequent evil following carelessness about keeping the bottles and nipples clean, as well as failure to wash out the baby's mouth after each feeding, is "sore mouth."

The baby may be somewhat fretful and act hungry, snatch for the bottle and try to suck, then stop and cry. On examining the mouth there will be found white spots on the cheeks, tongue, and hard palate which looks like curdled milk; when they are rubbed it is found that they adhere to the mucous membrane.

Give the child a dose of castor oil, and wash the mouth after each feeding most carefully, using boracic acid solution. Wind a clean piece of linen or absorbent cotton round a (clean) finger, dip into the solution, and rub very gently but thoroughly all around the mucous membrane.

See to it that everything pertaining to the feeding bottles, nipples, brushes, and jar for the nipples is spotlessly clean. If the spots do not disappear, send for a physician, for sometimes this trouble becomes very serious. Of course, delicate children are more apt to have this, and it sometimes leads to a grave condition. This is also often accompanied by diarrhea, and the skin around the anus and in the groins becomes red and chafed.

Wash the buttocks after every movement of the bowels. Use a soft cloth with soap and tepid boiled water. The parts must be perfectly clean. Then dip a piece of absorbent cotton into milk of magnesia and gently sop all over the red surface and let it dry on. The skin will become normal shortly, and stay so if kept clean.

PROLAPSE OF THE BOWEL.

One of the bad effects of trying to teach a child who is too young to use his chair instead of soiling the diaper is prolapse of the rectum. It was mentioned in another chapter that prolapse comes from other causes than this, and, unless it can

be remedied by care on the mother's part, it may become very distressing for the child. It may be caused by the straining of constipation, or as a result of diarrhea and, while at first it is only a slight protrusion of the large bowel which appears every time it is opened, later more of the bowel comes down not only in defecation, but on every provocation, such as sneezing, coughing, etc. Treatment for this should begin with the first sign of protrusion. Gently replace the bowel immediately, wash the parts with cold water freely. Never allow a child to strain at stool, but keep the movements soft. One excellent method to prevent this is allowing him to lie down with a diaper under him. Otherwise the buttocks should be pressed together if he is allowed to sit on his chair.

If these things are not successful, more active measures will have to be resorted to.

CONSTIPATION.

A frequent disease in the bottle-fed baby, and also found in the breast-fed, is constipation. The movements are too infrequent or too hard, and often both.

Do not use any drugs, but regulate the diet of the mother when the baby is nursed, and of the baby when it is bottle-fed. The first thing is plenty of water for the baby to drink; after the first two months orange juice every morning. One teaspoonful of olive oil once a day in two doses is good. These will generally bring him to terms.

After a child is a few months old, put him on his chair at the same time every day, and hold there for five minutes or so. In this way regular habits can be established very early, and they are of inestimable value. If, when the baby is placed on his chair, he is kept quiet and not played with or diverted, the end is accomplished sooner. This is an important point which many people entirely forget, that strict attention to the business in hand is the way to impress the child with its importance. This point must often be borne in mind long after baby days.

There is another point of great importance, that is, the posture. At first the baby is held up in position, but when he is old enough to sit up by himself he should do so. A child should sit so that his knees

are well up above the level of the abdomen. The chair should be low, and the feet supported by a block. He should never sit with his feet dangling down, for in this way the wrong set of muscles is brought into play, which is in itself a detriment.

The use of suppositories is not altogether desirable, though occasionally they are of service. A cheap device is a home-made smooth soap-stick, cut out of castile soap, two inches long, about one-half inch thick at the base and tapering to the top. It must be rubbed smooth and covered with vaseline before using.

For the immediate evacuation of the bowels, an enema of warm salt water, one teaspoonful of salt to a pint of water, or of soap and water is very good. Four to eight ounces of water may be used for young babies, but for older children a larger amount of water is better.

There are many times when a high enema is more efficient than a low one, but it should be ordered by the doctor. It is a simple thing to do, and, if carefully managed, quite harmless. Use a medium-sized rectal tube, fasten it to the nozzle of the

syringe, and allow the water to run through this, as through the simple nozzle. Vaseline the end and insert into the rectum. As soon as the point is well in, allow the water to run; that keeps it from doubling on itself. Use no force, and allow the water to run slowly. The tube can be inserted several inches with no pain, and it must be vaselined as it is urged along. The high enema clears the bowels much more thoroughly, which makes it of great value at times.

If the mass in the bowels is hard, one-half ounce of warm sweet oil injected into the bowels, and retained if possible, is efficacious. This should be put in with a rubber syringe. The same is true if glycerine is used. This is rather thick and will not run out of the nozzle unless the opening is large.

One-half teaspoonful of glycerine in six teaspoonfuls of water is often very satisfactory, but sometimes glycerine with no water is better. In this case, use about one-half ounce of warm glycerine, and be sure that the syringe is also warm before trying to expel such a thick substance.

Patience and perseverance with the diet, aided by an occasional dose of olive oil or an enema, will usually do the work, and are decidedly to be preferred to the use of drugs which should never be resorted to until everything else fails.

CONVULSIONS.

There are few things more terrifying to a mother than to see her baby have a convulsion. The family physician may live within a stone's throw but he is rarely to be found on these occasions, and something must be done immediately.

Remove the child's clothes with as little disturbance as possible and put him into a mustard bath—temperature about 105°. Keep the head cool by wet cloths, and rub the body and extremities well. Give an enema of soapsuds as soon as possible, for these seizures are very frequently caused by improper diet. When the child can swallow, give a dose of castor oil.

For giving the baby an enema, the old-fashioned Davidson syringe is very good. Have five or six ounces of water if the patient is very small—and more for an older

child—in a bowl; then just before inserting the nozzle, which must be small-sized for a small baby, draw a little water through the tube and expel it. This drives out the air, and heats the tube. Cover the end of the nozzle with vaseline, and gently insert it into the rectum. *Never use the least force.*

Allow the water to run as soon as the nozzle is in place, and let it go very slowly. By so doing there is no danger of injuring the child.

The baby should be placed on his back, on a pad or heavy towel, and as soon as the nozzle is withdrawn, place the hand close against the rectum to help keep the water in for a time before it is discharged.

In case a mustard bath is for any reason out of the question, a mustard pack can be substituted and is made as follows:

"Strip the child and lay him on a blanket, and the body is surrounded by a large towel saturated with mustard water. This is made by putting one tablespoonful of mustard to one quart of tepid water. In this a towel is dipped and while dripping is wound around the entire body. The patient should then be rolled in a blanket.

"This pack may be continued for ten or fifteen minutes, at the end of which time there will usually be a very decided redness of the whole body."[1]

After a baby has had a convulsion, no matter whether it was slight or severe, he should be kept very quiet for at least twenty-four hours or even longer. An attack of this kind is always hard on the nervous system, and the patient who has had one requires very soothing, gentle handling.

It is often a great temptation for the excited, frightened mother, after the relief has come, to pet and caress the baby, but every one who has to do with the child should be on his guard not to disturb or excite him in the least. Undue excitement predisposes to more attacks, and frequent convulsions are serious. Indeed a physician's advice is imperative.

A large amount of plum pudding eaten by a very small child brought on such a severe convulsion that it seemed as though the child would die in spite of the doctor's

[1] Holt's *Diseases of Children*, p. 52.

efforts. Whether this particular form of indiscretion was repeated or not cannot be recorded, for the case was lost sight of years ago, but it will be some years longer before the frightened looks of the terrified mother will be forgotten.

COLIC.

Colic is one of the frequent disturbances of early baby days, and causes much unhappiness to everybody in the family. There is a strong, hard cry which comes suddenly, and returns every few minutes, the feet are drawn up, and the muscles of the face are contorted, and there are other signs evident of pain. The abdomen is tense and hard. When the attack appears give the baby an enema of warm water, and apply heat to the abdomen and feet. Hot compresses, that is, pieces of flannel wrung out of hot water applied to the abdomen, are very soothing. Add ten drops of turpentine to the water to increase its efficacy if necessary. The flannel should be changed often enough not to allow it to cool, and after the flannel is put on the abdomen it should be covered with a

dry piece. The enema is given to expel the gas, and if warm water will not do it, two ounces of cold water with one-half teaspoonful of glycerine rarely fails to accomplish it. If hot-water bags are used, never fill them, for the weight is objectionable if too full. For this reason, hot stupes on the abdomen are better. Place a hot-water bag at the feet of the child.

If colic appears in a breast-fed baby, not infrequently the trouble is caused by too much of the proteids in the milk, and can be remedied by giving the child one ounce of water or barley water before each feeding, and having the bowels move at least twice a day.

In one of the writer's cases, the trouble was remedied by having the mother eat a light supper, and have her dinner in the middle of the day.

A point to be remembered in a colicky bottle-fed baby is that digestion is apt to be slow, so that the intervals between the feedings should be made at least one half an hour longer than otherwise would be considered proper.

TEETHING.

A great deal of importance has always been attached to the process of teething, and many of the illnesses of baby days is attributed to this. As a matter of fact, the great majority of healthy children get their teeth with but little inconvenience to themselves, and many children go through this period with no disturbance whatever.

The normal age for a child to get the first teeth, and the order of their coming is subject to wide variation. So great is the range that no very adequate rule can be given. The two lower incisors generally come first, but even this is by no means necessary. Next the four upper incisors appear; then the lower lateral incisors and four anterior molars. Then the canines (eye and stomach teeth) and then the posterior molars.

The teeth may begin to appear at almost any age after about the fifth month. The last ones usually come some time during the third year.

Just as the teeth are ready to come through, the gums are often somewhat red and sore, and occasionally there is

considerable swelling. Rubbing them will relieve this condition and usually that is all that is necessary. All this passes over in a short time, and beyond a temporary disturbance, nothing more is likely to happen.

When, however, there are marked signs of indigestion accompanying the eruption of the teeth, it is generally a coincidence, but the disorder needs to be rectified, from whatever cause. No diarrhea, especially in the summer, must be neglected or allowed to continue because it is considered to be merely "teething." In hot weather the amount of food should be reduced—much trouble will be saved for the child by just this one precaution. For he is far more likely to be overfed than underfed. In warm weather, the system requires less food, thus less work should be put upon the digestive apparatus.

The mistake that mothers make is thinking that with the getting of the teeth a diarrhea is inevitable, and for this reason needs no treatment, or in other words, that to have teething babies sick is quite to be expected.

The eruption of the teeth is a physiological process, and beyond a local and temporary disorder should give no trouble. When the other symptoms appear, they are generally due to other causes and should be treated promptly. One green stool is a danger signal well worth consideration, and the mortality list for neglecting to regard this sign is enormous every year.

WHOOPING COUGH.

Whooping cough, a very prevalent contagious disease of childhood, as it is seen at all seasons of the year, is one of the most fatal of the contagious diseases. The fatality is due to the fearful complications which follow it, especially pneumonia, tuberculosis, convulsions, and, in the summer, affections of the bowels. It is probably contagious during the whole attack, and for this reason children should not be allowed to go into the street, trolley-cars, trains, or any public place with whooping cough.

A person is occasionally seen who has been twice afflicted with this most trouble-

some disorder, but ordinarily one attack is all.

The disease may be severe, or so mild that it is hardly noticeable. In babies it is particularly dangerous. It begins with what seems like a simple cold, and a cough which is worse at night. Soon, however, it is seen that the cough does not yield to treatment and assumes the form of paroxysms, which grow more and more severe. If there is frequent vomiting, the child becomes thin and weak.

The paroxysms are worse at night, and are always noticed most where the air of the room is not kept fresh. There may be only one or two a day, or there may be forty or fifty. The average duration of the disease is about six weeks, but it may be much longer. Occasionally, after the whoop has ceased, and the child seems quite well, the cough and whoop may begin again, though this secondary attack is not contagious.

It is a fatal mistake to feel that whooping cough is so mild that home treatment is all that is needed. There is no way to arrest the disease, for it has to run its

course, but good care can relieve the worst symptoms and the physician should be consulted. Even then it may be hopeless. The child should be carefully nourished, especially when the vomiting is severe. The severity of the vomiting can be greatly lessened by having the child wear an abdominal binder. He should be kept in the open air as much as possible, and sleep in a room well ventilated. The bedding should be changed at least twice a week, and the night dress oftener. Fresh air and marked cleanliness help keep down the number of paroxysms.

No child who has whooping cough should be allowed to be with other children. A little three-months-old baby contracted it from a neighbor's child who was at large, and died from convulsions. It certainly seems a trifle unneighborly utterly to disregard others' comfort and welfare, simply because it is not easy to keep a restless child within bounds.

MEASLES.

The most frequent, and decidedly the most contagious, of the infectious diseases

is measles. It is not often seen in very young babies, but after the first year it can come at any age. One attack is not absolute proof against a second, though usually one is all that a patient will have. Many cases are light, and no serious after-effects are noticed; for this reason it is regarded as an insignificant affection and is treated by many in a very cursory manner. As a matter of fact, it is a serious thing, causing many deaths by the complications which may follow, pneumonia being the most frequent, while many cases of deafness and impaired eyesight are the direct result of measles.

Members of the family are not competent to pronounce the disease cured, but because they feel that they are, it is nothing unusual to see children in the street or schools still suffering from the trouble, and in prime condition to spread it through the community. Thus many of our epidemics are started and kept up.

The disease begins with a cold, eyes running, sneezing, and a heavy, stupid expression of face. The rash appears from the second to the fourth day, on the

face first, and then spreading over the body. The face is entirely covered and often much swelled, giving the patient a most unnatural appearance. The spots are purplish red papules which later coalesce in groups, crescent-shaped, and very characteristic. There may be diarrhea, and a more or less severe cough which only stops with the fever. The eyes are red and inflamed, and intolerant of light, unless they are bathed freely with boracic acid solution, protected, and not used, and are often left in an inflammatory condition troublesome throughout life. The patient must be protected from cold. A bath given every day with bicarbonate of soda relieves the itching, after which sweet oil should be rubbed all over the body. There is no peeling or desquamation as in scarlet fever. The patient should be isolated to protect the other children if possible. The disease can not be carried by a third person unless great carelessness is practised. If a handkerchief is used as common property for the sick child and other members of the family there is no reason why the disease

may not be transported to any number. The discharge from the eyes and nose is highly contagious.

SCARLET FEVER.

Scarlet fever, scarlatina, scarlet rash are one and the same, and one of the commonest diseases of childhood. It occurs any time of the year. It is rare for a child to have it under one year of age, and very rare under six months. It is contagious both by personal contact, and possibly by means of a third person, and the germs possess remarkable vitality.

Dr. Kerley tells the following anecdote:

"A little girl four years of age, who lived in one of the Hudson Valley villages, contracted scarlet fever while on a visit to a neighboring town; the case was a severe one and the child died. A coat which she had worn when stricken with the disease was considered too valuable to be destroyed and was carefully laid away in a bureau drawer. Twelve months later the mother decided to give the coat to a neighbor's child. It was removed from the bureau, which had remained unopened, and placed

on the little one. In five days she was attacked with scarlet fever. These were the only two cases that had occurred in the village. The second child had not been away from home, and the jacket was the only possible means of infection."[1]

The disease may be carried by means of toys, books, etc., and the greatest care has to be exercised to keep it from spreading.

The attack may be so mild that it is overlooked, or so severe that death occurs in a few hours. A child with the mildest form is quite capable of giving another child the most severe type. The onset is sudden, occasionally beginning with a convulsion, usually with sore throat, fever, and, generally, vomiting. The rash may appear within twenty-four hours, usually first about the chest and neck, then gradually spreading all over the body; the face has less than other parts, and generally there is a white space around the mouth which is very characteristic. There is no disease in all medicine which may be more baffling and difficult to diagnose than this, and none with more contradictory symp-

[1] *Short Talks to Young Mothers.*

toms. There are many variations about the rash, and occasionally it is of such short duration as to escape notice. It consists of minute red dots so closely set together as to give the skin a deep scarlet color. The color increases for a few days, then fades away gradually, lasting altogether about a week; the skin begins to peel in large or small shreds. This characteristic desquamation is of a variable extent, and frequently too slight to be detected, except with a magnifying glass, but generally very noticeable about the hands and feet, and lasts for a variable length of time. It may stop and then begin again, so that no child can be pronounced well until at least ten days after all signs of desquamation have stopped.

The disease is always alarming, for a mild case may become severe; pneumonia, inflammation of the ears, abscesses of the glands in the neck or Bright's disease can follow any form.

Bright's disease, especially, may appear very late in the convalescent period. Every precaution must be taken to guard against cold. While there is any fever,

and for days after it has left, it is better to keep the patient in bed. The child should be bathed carefully every day and oiled with sweet oil or vaseline, to prevent the particles of skin from flying around.

In certain localities, where there is a Board of Health, many devices are resorted to in order to keep the authorities from knowing of the presence of scarlet fever. Here again is shown a selfish disregard for others which is always liable to bring great disaster to innocent unsuspecting neighbors.

MUMPS.

This is a painful, but not usually dangerous, inflammation of the salivary glands which are situated in front, below, and behind the ears, and below the jaws.

It seldom attacks young infants, though it is distinctly contagious.

The disease usually begins with dullness, some fever, and pain about the jaws, generally on one side. A swelling situated below and slightly behind the ear rapidly develops. There is tenderness on pressure, chewing is painful, and often im-

possible. Sometimes the mouth can scarcely be opened. After a day or two the other side becomes affected.

The patient should be kept in bed on soft diet, and the bowels kept well open; hot fomentations applied to relieve the pain. The trouble will subside in a few days. Quarantine should be kept up for at least ten days after the symptoms have disappeared. Disastrous consequences with older children have followed in the wake of mumps unless great care is taken.

CHICKEN POX.

This is a very common contagious disease not often seen in a child under six months of age—nor does it occur in any one the second time. There are no marked symptoms, generally speaking, nor are there any after-effects as a rule. Dr. Kerley speaks of one bad case of Bright's disease which he saw, but that is unusual.

The disease consists of an eruption which appears usually first on the neck and trunk in small red spots which change to vesicles filled with a clear, watery fluid; later these dry up, leaving a scab. The

itching is often very trying, and can be relieved by bathing with boracic acid solution and water, or a strong solution of baking-soda and water. A small child had better be kept in bed until the crusts are formed, and quarantine should be continued until the skin is clear.

If the sores are scratched they may become infected.

COLDS.

The baby may take cold from contact with other people who have colds, or from undue exposure, living in overheated rooms, or being dressed too warmly—to say nothing of having the same handkerchief used for him which has been used by others. No baby is too young to have his own handkerchief, especially when there are several in a family affected alike with colds.

As the first signs of the trouble appear, give the baby a dose of castor oil, and if there is any tendency to cough and hoarseness, rub the chest with camphorated oil and then protect the chest by placing flannel over it. Give plenty of water—as

much as the child wants or will drink. Have plenty of fresh air in the room. The habit of giving sweet spirits of nitre is not to be commended.

If the child appears sick, send for the physician. Colds may become serious and, unless broken right up, need skilled attention.

Children afflicted with enlarged tonsils or adenoids are constantly catching colds, and are better subjects for tonsilitis, diphtheria, and for diseases in general, than the normal child. The defects can generally be remedied in baby days, and by so doing will save the family much misery.

CATARRHAL CROUP.

This disease, though alarming, is rarely dangerous. It frequently follows cold or exposure to damp winds. The child may show signs of an ordinary cold, growing hoarse toward night, and coughing with a peculiar metallic sound. After having been asleep a few hours, the baby wakes suddenly, sits upright and gasps for breath. Breathing is very difficult, the

face becomes covered with perspiration and bluish in color. This stage only lasts a short time, though the child may be restless and distressed for breath for some time longer. After a while he drops to sleep and rests quietly the rest of the night. There may be several of these attacks, or only one.

Treatment consists in causing the child to vomit immediately. Give a teaspoonful of vaseline—three or four drops of kerosene on a lump of sugar will be effective—and put hot fomentations on the throat and chest. In the morning move the bowels well with castor oil.

A child who has this tendency should be guarded from taking cold, though he should have fresh air in his room at night. Every day the throat and chest should be washed in cold water and rubbed until decidedly red. The general system should be toned up, if the child is otherwise delicate, and great care taken that the digestion is in good order. If adenoids are present, have them treated.

BOILS.

Boils are common in little babies, and are caused by infection from without, and are not, as is often supposed, due to bad condition of the blood. If the baby is not well, he is, of course, much more easily affected by any abnormal condition, and the first boil is not infrequently followed by others.

Never poultice the boil, but open early to let the pus out, then wash thoroughly the surrounding skin, and cover with several thicknesses of clean linen wet with boracic solution, or with witch hazel.

Poultices make the surrounding tissues particularly liable to infection, with the result that, instead of one, there will be several boils to be treated.

RUPTURE.

Many babies have a rupture or hernia—that is, a protrusion of the bowels through some weak spot in the muscle—which causes a soft, round swelling. This may be most often seen in the navel, occasionally in the groin. It is most prominent when the child cries, and disappears when he

lies down. In very small babies, if it is the navel which is affected, three or four pieces of adhesive plaster put on like a star will generally bring about a cure.

The swelling must be pressed down, and the plaster stretched on one side, then pulled over to the other. The three pieces so put on that the swelling will be right under the middle of the three layers of plaster where they are crossed.

If, however, this is not satisfactory, the physician must be consulted, for grave consequences follow neglect, as a hernia allowed to go on is always dangerous.

VACCINATION.

Every child in fair health should be vaccinated, and the age when this is best is when a baby. In many of the States no child is allowed to go to school unless this has been done, and if done with surgical cleanliness there is no danger of any of the fearful consequences believed by some to be almost inevitable. Occasionally unusual conditions are reported, but these are due to carelessness rather than to the virus. One great source of danger

is the so-called "vaccination cap" used to protect sores. These dam back the pus and cause auto-infection, and more than one case of lockjaw has been caused by these vicious "protectors." After the child has been vaccinated, care should be taken that the bowels move freely. If there is any tendency to constipation, a laxative should be given. The sore should be covered with clean, dry gauze, and kept covered until the scab begins to dry. Beyond a somewhat painful sore which lasts for several days, nothing happens in the majority of cases, and where the operation has been properly performed and the vaccine has "taken" it renders that particular child practically immune from smallpox for at least a number of years. After six or seven years the operation should be repeated, especially if one lives in a locality where cases of smallpox occur from time to time. That this is one of the most remarkable discoveries in medicine, most people admit; nevertheless occasional denunciations of it are made. The process known as "internal vaccination" is quite worthless. There are only two ways

of becoming immune from this terrible scourge; one is to have the disease itself, and the other the much simpler method above mentioned, but there is nothing taken by mouth as a medicine which is of any value. It is certainly surprising that in this enlightened age any procedure which has been of such incalculable good to the human race should have to be defended, and that in spite of all statistics and facts any one should still denounce vaccination as cruel, inhuman, etc. It is not within the scope of this volume to enter into a lengthy discussion of the subject. The history of the change brought about in the Philippines since vaccination has been introduced is in itself an argument quite sufficient for most "open minds."

"In 1871 Germany lost one hundred and forty-three thousand lives by smallpox. In 1874 a law was enacted making vaccination obligatory during the first year of life, and compelling its repetition during the tenth year. The result was that the disease almost entirely disappeared. At the present time the loss of life from small-

pox throughout the empire is scarcely one hundred a year.

"At the time of the Franco-Prussian War, the entire German army was revaccinated; while in the French army, vaccination being optional, comparatively few were vaccinated. Both armies were attacked by smallpox, the French losing twenty-three thousand men, the Germans two hundred and seventy-eight!" [1]

BURNS AND SCALDS.

Burns and scalds are frequent catastrophies with small children. Though produced in different ways—a scald from contact with a hot fluid, and a burn from contact with a flame or dry heat of some sort—the results are much alike. The danger to life from a burn depends upon its extent, while the amount of deformity depends upon the depth.

Only small burns should be treated by the mother. Shock may follow what seems to her rather a small affair, and is therefore an element of danger to be reck-

[1] Dr. Kerley's *Short Talks to Young Mothers.* Page 217.

oned with in all burns more than really slight. If there are blisters, they should be carefully opened with a needle, the point of which should be passed through a flame to render it surgically clean, then place several layers of clean cloth wet with a strong solution of baking soda—a heaping teaspoonful to a glass of water—over the burned area. As soon as the pain subsides, oxide-of-zinc ointment may be put on it. Boracic acid, one teaspoonful to an ounce of vaseline, makes an excellent ointment.

If the child's clothes are on fire, he should be thrown on the floor and rolled in a piece of carpet, rug, or coat—anything that will smother the flames. If it should chance that a pail or tub of water be near at hand, plunge the child into it, which is far better. Running about the room only fans the flames and makes matters worse. As soon as the flames are extinguished, put the child into bed, and give him plenty of fresh air. Keep him quiet, and be sure that the feet are warm. Use a hot-water bag if necessary, and be very calm yourself. Children are easily

excited, and a mother who keeps her head cool has a great advantage.

Remove the burned garments cautiously, and if the skin is burned, each exposed area must be covered as soon as possible with a dressing of carron oil—equal parts of olive oil and lime water—or a strong solution of baking powder. Bicarbonate of soda or baking powder is generally more convenient and it is clean and odorless—two great advantages.

Burns produced by carbolic acid are best treated by alcohol. Burns from other acids should be treated with dry baking soda.

Burns produced by a strong alkali should be treated with water and vinegar or lemon juice.

FOREIGN BODIES SWALLOWED.

Babies and small children have a marked tendency toward swallowing anything small enough to be put into the mouth, such as buttons, safety-pins, coins, etc. If the child succeeds in doing this unnoticed, there is generally no further trouble and no one is any the wiser until some unexpected article is passed with the stool.

Owing to this propensity, small children should not have highly colored toys like painted blocks, for in trying to swallow them, the paint is swallowed instead. Any part of a toy animal which can be taken off or out, as the whistles that so many rubber beasts have, should be removed before the baby is given the toy. Otherwise it will go as most other things do, down the throat.

If the child is known to have swallowed anything unlawful, *never give a cathartic.* Soft substances like oatmeal, mush, potatoes, or even bread will do very well to allow the object to become buried in, and carried forward in the digestive tract. If the object has gone down, the probability is that it will be safely carried on through the entire alimentary tract. A dose of castor oil or anything of that nature may do great harm. It is not necessary to worry, but *wait.*

EARACHE.

Earache is a common affliction of childhood, often beginning in baby days. The pain is severe, causing a baby to shriek

hard and long. The seat of the trouble can often be detected by pressure in front of, or just behind, the ear. If the child is old enough he will bury his head in the pillow, or pull at his ear. Sometimes older children refer to the mouth as the place where the pain is. Occasionally, the only clearly defined symptom is a yellowish discharge from the ear, and a markedly disagreeable odor.

Inflammed nose or throat is often responsible for earache. Sometimes no cause can be found. To relieve the pain, heat is the best. Syringing the ear out with hot water is also very soothing. This can be done with a small syringe, or with a common douche bag held about two feet higher than the child's head. After the water has been used turn the head so that it will all run out. The mother should carefully test the nozzle and the heat of the water. Children have been badly burned by carelessness about this. A hot-water bag arranged for the patient to lie on gives much comfort or, better still, a hot salt bag. A small piece of muslin made into a bag and filled with salt and heated is an

excellent remedy for pain, and retains the heat for a long time. If there is any discharge, consult some physician, for deafness is very apt to follow, and many a grown person is going through life hindered from doing his best by the deafness which is a result of the carelessness or indifference of his parents. A discharge from the ear invariably needs attention and should never be ignored.

ECZEMA.

Eczema is one of the most troublesome diseases of childhood, and common in little babies. It is brought about by a variety of causes both internal and external, and not infrequently no cause can be discovered.

Improper diet, lack of cleanliness, bad hygiene, and inherited tendency are all factors.

The external causes are all kinds of irritants. The skin of a baby is very delicate, and bad inflammatory conditions arise from every little lack of care. Excessive perspiration, strong soaps, cheap toilet powders, discharge from the nose or ears, but

principally lack of proper bathing, are all responsible.

The internal cause is generally indigestion, found in both bottle-fed and breast-fed babies. In the latter case, the mother should be treated as well as the child. In the case of a bottle-fed child, the diet must receive attention.

Absorbent cotton should be laid between opposing surfaces, and milk of magnesia used freely on a properly clean surface is very effective. Burnt flour is an old-fashioned remedy and very good.

If the trouble has assumed very considerable proportions, bathing must be omitted. Water is an irritant to an eczematous surface, and must therefore be used very sparingly. The most frequent form is when the skin becomes bright red and covered with minute vesicles. These soon rupture, leaving the surface swollen, red, and moistened with a watery discharge which may thicken and form crusts with raw flesh beneath. In another form, the skin is dry, perhaps cracking easily. There are several varieties, any of which may cause intense itching until the child is almost fran-

tic, and as it is worse at night he loses much sleep.

The baby should have a dose of castor oil, and its hands tied up in mittens to keep from scratching, which makes the trouble worse and harder to cure. The best treatment here is prevention when this is possible, for often eczema is so persistent that the patience of the physician and mother is sorely tried before the siege is over.

HIVES.

A trouble often seen in children is familiarly known as hives. The most frequent type consists of many or few large wheals, firm, flat, red blotches, which last a few hours and then disappear. The most distressing symptom is the intense itching. The disturbance is usually caused by digestive trouble, eating some special article like strawberries, pastry, nuts, etc., which may disagree with one child, while another can eat the same thing and feel no bad effects. Constipation may also be a factor.

The treatment consists in avoiding offending articles as far as they are known, and in a restricted diet for a time. The

itching may be relieved by bathing with a strong solution of bicarbonate of soda, or one teaspoonful of carbolic acid to a pint of water.

RINGWORM.

Ringworm is a contagious affection, due to fungous growth, and very common among children. It may appear anywhere on the body or face, or in the hair. The lesion consists of a small circular spot which gradually enlarges into a brighter red patch with a scaly border, and rather a natural looking center. If in the hair, the place is not red; the hair falls out and leaves a scaly circular spot with stumps of the broken hair. This is most characteristic.

The cure of ringworm of the scalp is very difficult, and can only be accomplished by most patient perseverance. No mother should think of trying to do it alone.

On the face and body, the spots should be painted with tincture of iodine until the patch disappears. There should be no interchange of towels or handkerchiefs or any toilet articles while there is any ringworm present.

The so-called "mange" in dogs is often ringworm, and this is a most prolific source of infection where children have pets. The disease can be cured in these animals by applications of iodine the same as in human beings.

RETENTION OF URINE.

Retention of urine is rather a common affection, but it usually causes some alarm.

It may follow an attack of colic, or come from taking cold, or be due to some inflammatory condition.

Be sure that the child has plenty of water to drink, then if no urine comes after ten or twelve hours apply hot clothes over the bladder, or put the child into a tub of as hot water as he can bear. A normal salt-solution enema—one teaspoonful of salt to a pint of water—given as hot as possible will almost invariably give relief. As much water as possible should be given and retained as long as the child can hold it. Pressing the hand against the rectum will help him retain it.

If there is any sign of local trouble, of course that must be removed.

BED-WETTING.

After a child is three years old, there should be no trouble of this kind provided that there is nothing abnormal about him, and that he has been well trained.

Many local conditions such as worms, stone in the bladder, lack of cleanliness, bad habits, or any inflammatory condition may cause it, and nothing but removing the cause will cure the trouble.

Each night the child should be taken up at ten or eleven o'clock and made to urinate. He should be given no fluid after five o'clock, his supper must be as nearly a dry meal as possible. Be sure that the child does not sleep on his back. To prevent this, tie a tape around his waist with a knot in the back. If these measures are not effectual consult a physician.

RASH FROM POISON IVY.

This is an intense inflammation of the skin produced by contact with certain plants and vines. There are a number of plants which will cause this dermatitis, of which the poison oak or ivy is the most common. Some children are very suscep-

tible, others are not affected by being near this, or even handling the leaves. If it is known that a child has been exposed, a thorough scrubbing with tincture of green soap and hot water will often prevent the trouble developing. The rash appears very soon after exposure, in a few hours at least. In this respect it is different from eczema which develops slowly.

The skin becomes swollen, red, hot, and itches, and is thickly covered with vesicles varying in size from a pin-head to a split pea. These soon discharge their watery contents, which dry into crusts over the surface. The face becomes so swollen that the child can scarcely open his eyes, and he is really a most distressing-looking object.

Clean pieces of gauze wrung out of lime-water and placed over the inflamed surface are as soothing as any of the many remedies advocated. They must be changed, so that they may be always wet. At night a salve can be used instead. Oxide of zinc, alone, or combined with boracic acid and vaseline, makes a very good dressing.

Oxide of zinc.	Oxide of zinc.
Boracic acid *aa* 2	Boracic acid—equal parts.
Vaseline 30.	Vaseline—15 times as much.

RHEUMATISM.

Rheumatism is a rather frequent trouble with young children, and often so very mild as to be scarcely noticeable. It may be so severe that the pain may be marked, joints inflamed and tender, and fever high. But whether mild or sharp, the physician should be consulted, for many of the heart troubles of adults began in childhood with rheumatism which was not properly treated. So-called growing pains may be, and often are, of rheumatic origin. In any case of rheumatism the child should be kept quietly in bed, fed on a light diet, with no meat, and the inflamed joints wrapped in cotton-wool, or flannel.

PEDICULI.

Lice are naturally found on the dirty, uncared-for children, but any child may have them if brought in close contact with

them. They produce a very disagreeable itching of the head which, if scratched until the skin is broken, produces an inflammation. Not infrequently this inflammation spreads down the neck and face until the victim may become a very sorry-looking object.

The treatment consists in getting the head clean. There are many remedies used for this purpose. If the invasion is recent, wash the head thoroughly with tincture of green soap, and then rub well with alcohol. Repeat this operation every other day for several washings, and use a fine-tooth comb. If there are many nits in the hair—minute oval eggs attached to the hair, and hard to remove—something more radical will have to be done. Kerosene may be rubbed into the hair, followed by a free use of vinegar to destroy the nits. The head should then be washed well with soap and water, after which the fine-tooth comb must be used, but care must be taken not to injure the scalp. This operation if done thoroughly is highly successful, but perhaps it may not be superfluous to say that this last course should not be taken near a

lighted lamp. Tincture of larkspur, or an ointment made from the seeds is much used. This ointment has to be rubbed in for a few days, and then washed out.

INSECT-STINGS AND BITES.

Insect-stings are painful, but seldom dangerous. If the sting is left in the wound it should be pulled out and spirits of camphor, or water of ammonia applied. The old-fashioned mud application is very good.

Mosquitoes are very prevalent in certain localities, and are most annoying. They, in common with the ordinary house-fly, are not only troublesome, but may be conveyors of disease, which makes them a decided menace. Houses should be protected from these insects as far as possible by screens in doors and windows and care on the part of members of the family. If it is impossible to screen the doors and windows, it is comparatively simple to throw a fine mosquito net over the baby's crib.

It is particularly necessary to protect a baby from these pests, owing to his inability to protect himself, and they tend to

make a baby nervous and fussy. Camphor or ammonia water should be used to wash mosquito bites to allay the itching. Infection caused by scratching with dirty nails is not at all uncommon.

Mosquitoes are distinctly poisonous to many children. Flies may, and do, transport many diseases, viz., tuberculosis, typhoid fever, cholera, and yellow fever, to say nothing of many minor ailments.

CHAPTER XI

REMEDIES FOR EXTERNAL USE, AND DIETARY

Albumen Water.

The raw white of one egg beaten lightly and well stirred with a glass of water. It may be strained if necessary to give to small baby through the bottle. A taste of sugar may be added unless ordered otherwise.

Barley Water.

One tablespoonful of barley flour into 1 pint of water. Boil for ½ hour, strain, and add sufficient boiled water to make 1 pint.

Barley Water, No. 2.

2 tablespoonfuls of barley to 1 pint of water, if wanted stronger.

Oatmeal Water.

1 tablespoonful of oatmeal to 1 pint of boiling water, cover and let simmer for 1 hour. Add water from time to time as it evaporates; strain.

Rice Water.

1 tablespoonful of (washed) rice to 1 pint of water. Boil three hours, adding water from time to time.

Toast Water.

One, two, or three slices of bread toasted dark brown, but not burned. Put in 1 quart of boiling water, cover, and strain when cold.

Arrowroot Water.

Wet 2 teaspoonfuls of arrowroot with a little cold water, and rub until smooth; then stir into 1 pint of boiling water, and boil for 5 minutes, stirring all the while.

Flaxseed Tea.

1 tablespoonful of flaxseed, 1 pint of boiling water; let stand and keep warm for 1 hour; strain. Add juice of lemon.

Oatmeal Jelly.

4 tablespoonfuls of oatmeal, 1 pint of water; boil for 3 hours in double boiler, adding water from time to time; strain.

Lime Water.

In two quarts of water place a lump of unslacked lime, size of small egg. Stir and let settle. Pour off first water and add fresh. Use

from the top, add water, and stir from time to time. Always keep covered.

Arrowroot Jelly.

Two tablespoonfuls of arrowroot rubbed with a little cold water; add to this 1 pint of water, and boil for 5 minutes; stir constantly, and use double boiler.

Beef-Juice.

Cut thin, juicy meat into pieces one and one-half inches square; broil for 2 minutes over hot fire. Squeeze with a hot lemon-squeezer. It can be warmed only slightly when serving or it will coagulate. Add a little salt.

Beef-Juice, No. 2.

Cut into small pieces 1 pound of juicy meat; broil for 2 minutes. Add 4 ounces of water, stir, and let stand on ice for at least 6 hours. Strain through cheese-cloth or muslin by twisting this hard. Add a little salt, and serve warm, or cold.

Whey.

1 quart of fresh milk warmed to 98°. Stir in one and one-half teaspoonfuls Fairchild's Liquid Pepsin. Put into a bowl or pitcher, and when set — after about one hour's time — break up thoroughly with silver fork. Heat slowly

over fire to 150°; remove immediately and pour into pitcher or jar. It should be stirred all the time it is heating.

ENEMAS.

Turpentine Enemas.

No. 1.	White of egg (beaten)		
	Oil of turpentine— add drop by drop.	1	teaspoonful.
	Olive oil.....	1	teaspoonful.
	Warm water.....	1	pint.
No. 2.	White of egg (beaten)		
	Glycerine	2	ounces.
	Oil turpentine..... (add drop by drop)	2	drachms.
	Warm water.....	1	pint.

Glycerine Enema.

Glycerine	4	drachms.
Warm soapy water...	4	drachms.

Starch-water Enema.

Starch	1	ounce.

Mix with a sufficient cold water to make thick paste; add boiling water until it becomes of the consistency of mucilage.

Normal Salt-water Solution Enema.

One teaspoonful of salt to one pint of water.

REMEDIES FOR EXTERNAL USE.

Carbolic Acid Lotion.

Pure carbolic acid	30	drops.
Water	6	ounces.

Alum Lotion.

Alum	6	teaspoonfuls.
Alcohol	8	ounces.
Water	8	ounces.

Excellent for profuse perspiration, and to avert bed sores.

Lotions for Chapped Hands.

No. 1.	Glycerine	3	ounces.
	Tr. Benzoin	½	ounce.
	Water	1	ounce.
No. 2.	Glycerine	2	ounces.
	Lemon juice		
	Tr. Myrrh *aa*	½	ounce.
No. 3.	Glycerine	2	ounces.
	Rose Water	2	ounces.
	Acetic Acid	2	ounces.

Sweet Oil and Turpentine.

No. 1.	Turpentine	1	teaspoonful.
	Sweet oil.....	8	teaspoonfuls.
	Very useful to rub on chest of baby with hoarseness or cough.		
No. 2.	Turpentine	4	teaspoonfuls.
	Sweet oil.....	6	teaspoonfuls.
	To use for an adult.		

Carbolized Oil.

Pure carbolic acid...	30	drops.
Olive oil.....	2	ounces.

Anything containing carbolic acid should be marked POISON and kept well out of reach of children. It should not be used on an extensive area of surface, but is a valuable remedy if intelligently used.

Mouth Wash.

No. 1.	Listerine	2	teaspoonfuls.
	Soda bicarbonate....	10	grs.
	Water	4	ounces.
No. 2.	Tr. Myrrh.....	xxx	M.
	Water	1	ounce.

OINTMENTS.

Borated Vaseline.

Boric acid.....	1	drachm.
Vaseline	1	ounce.

Carbolated Vaseline.

Carbolic acid	V.	M.
Vaseline	1	ounce.

Bismuth and Zinc Ointment.

Lubricate of Bismuth	30	grains.
Oxide of Zinc	30	grains.
Lanolin	½	ounce.
Vaseline	½	ounce.

DISINFECTANTS.

Carbolic Acid.

Carbolic acid (95%)	6	ounces.
Glycerine	4	ounces.
Water	1	gallon.

Clothes should be soaked in this for several hours, then removed in a covered receptacle and boiled thoroughly. Sheets may be wet with this and hung at the doors in case of infectious diseases.

Chloride of Lime.

Chloride of Lime	4	ounces.
Water (rain)	1	gallon.

In typhoid fever, all the movements from the bowels should be thoroughly mixed with this, covered and allowed to stand several hours be-

fore pouring down the water closet. All vomited matter should be treated the same way.

REMEDIES FOR LOCAL USE.

A poultice contains the heat longer than a fomentation; there are occasions when these are of great service. They are made of the following ingredients for ordinary use.

Flaxseed Poultice.

Ground flaxseed..... ½ cupful.
Olive oil..... 2 teaspoonfuls.
Add enough boiling water to make a thick paste. Cook for a few minutes, and beat thoroughly.

Spread this upon muslin and cover over with same. Test it to be sure that it is not too hot. Renew in from one to two hours—never let a poultice get cold. Everything must be ready before the poultice is mixed, or it will be too cool for any service.

Mustard Poultice.

Mustard ..... 2 parts.
Ground Flaxseed..... 4 parts.
Hot water, sufficient quantity to make paste.

Bran Poultice.

A flannel bag is partly filled with bran, thoroughly wet with boiling water, wrung out in a towel, and applied. This is much lighter in weight than flaxseed, so it is an advantage, where there is much tenderness. (CROZER-GRIFFITH.)

Starch Poultice.

Thick boiled starch is spread warm on a cloth and applied directly to the skin without any covering between. It is used to lessen irritation in some affections of the skin.

Spice Poultice.

Ground ginger, cloves, cinnamon, and allspice; from 1 to 2 teaspoonfuls of each (½ teaspoonful of Cayenne pepper makes it stronger). Put the dry and well-mixed powder into a flannel bag, spread it evenly. If bag is quilted it keeps it smoother. Before applying, wet it with hot alcohol. This spice-bag may be used repeatedly, and is very convenient to have for babies with colic.

Turpentine Stupes.

3 teaspoonfuls of turpentine to 1 pint of boiling water. Immerse the flannel and stir. Remove the flannel and wring it out in a twisted towel until it no longer drips. Anoint the skin

with olive oil, and then apply fomentation until it causes some discomfort or redness. If allowed to remain too long it will blister. (BECK.)

Mustard Plaster.

No. 1.

White of one egg....
Mustard ..... 1 tablespoonful.
Flour ..... 3 tablespoonfuls.
Glycerine ..... 1 tablespoonful.

Beat well and spread between layers of muslin or soft linen.

No. 2.

1 part mustard.
3 to 6 parts flour, for an adult.
10 to 12 parts flour, for a child.

Add sufficient tepid water to make a thin mixture, then spread on linen or gauze. The surface of skin should be covered with vaseline before the plaster is applied.

Hop Poultice.

Prepared and used exactly as is the bran poultice, over which it has only the advantage of being lighter in weight.

Antiseptic Poultice.

Useful for open wounds and far superior to

flaxseed or anything of that nature. This is really a hot antiseptic fomentation.

Boracic Acid Solution.
(2 teaspoonfuls of powder to pint of water.)

Ice Poultice.

Fill a bag of india rubber with small pieces of ice, and hold in place if necessary with binder. This should only be used by physician's order.

THE END

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